MARCH 1998

THE UNESCO COURIER

life beyond life?

INTERVIEW WITH
PAULO COELHO

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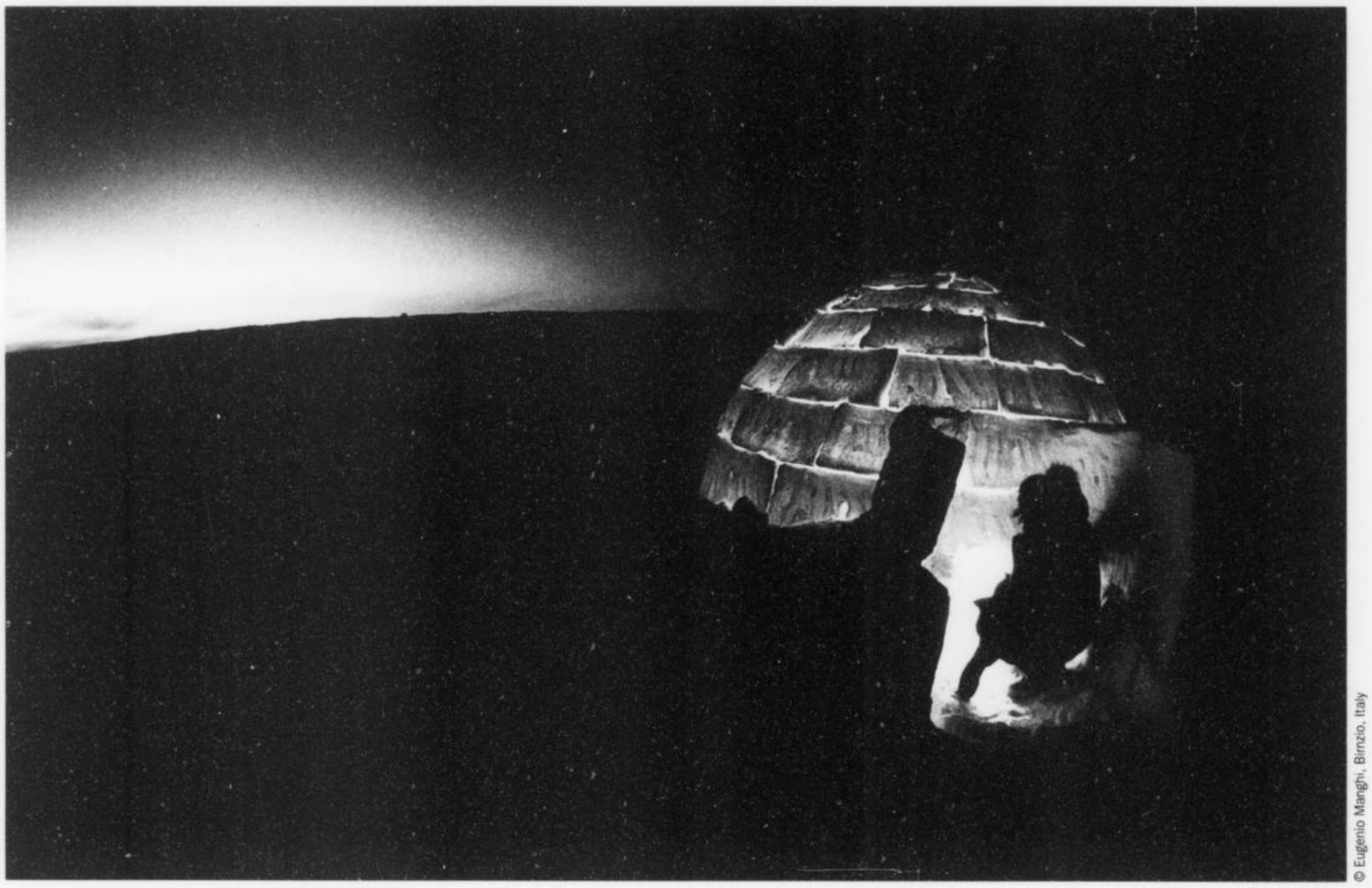

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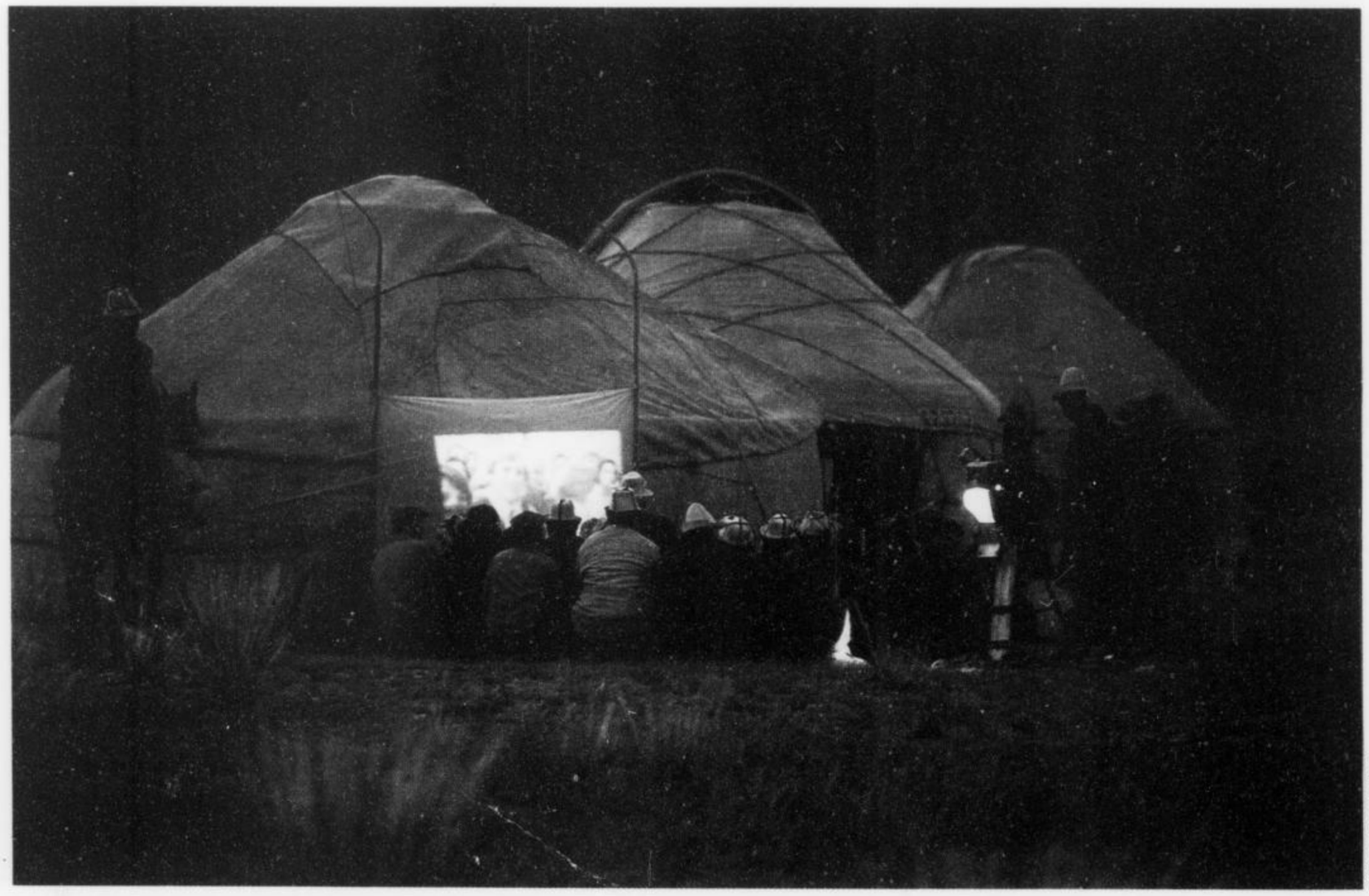

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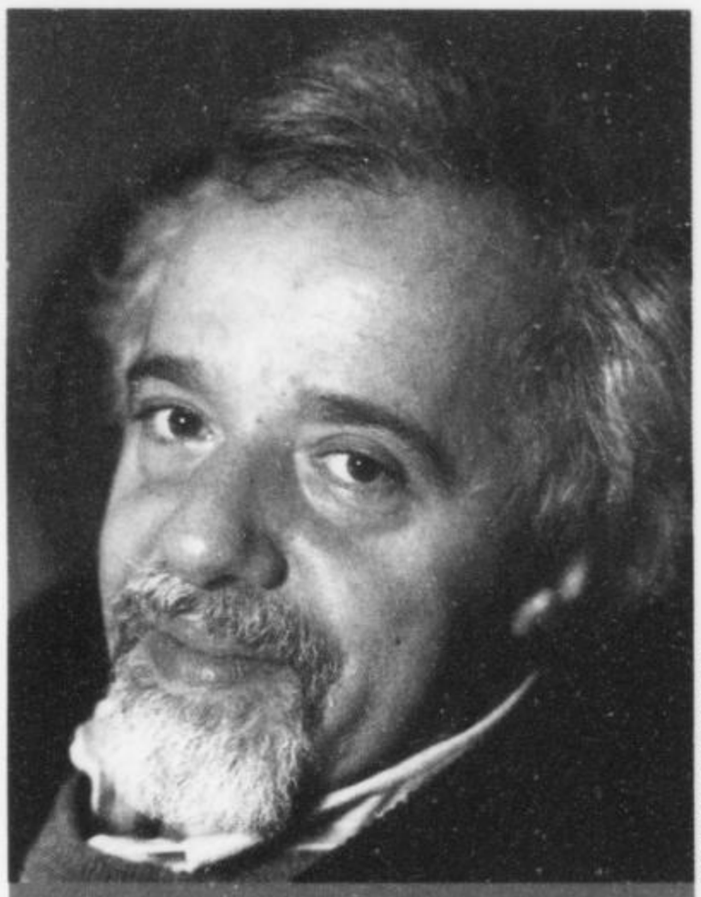

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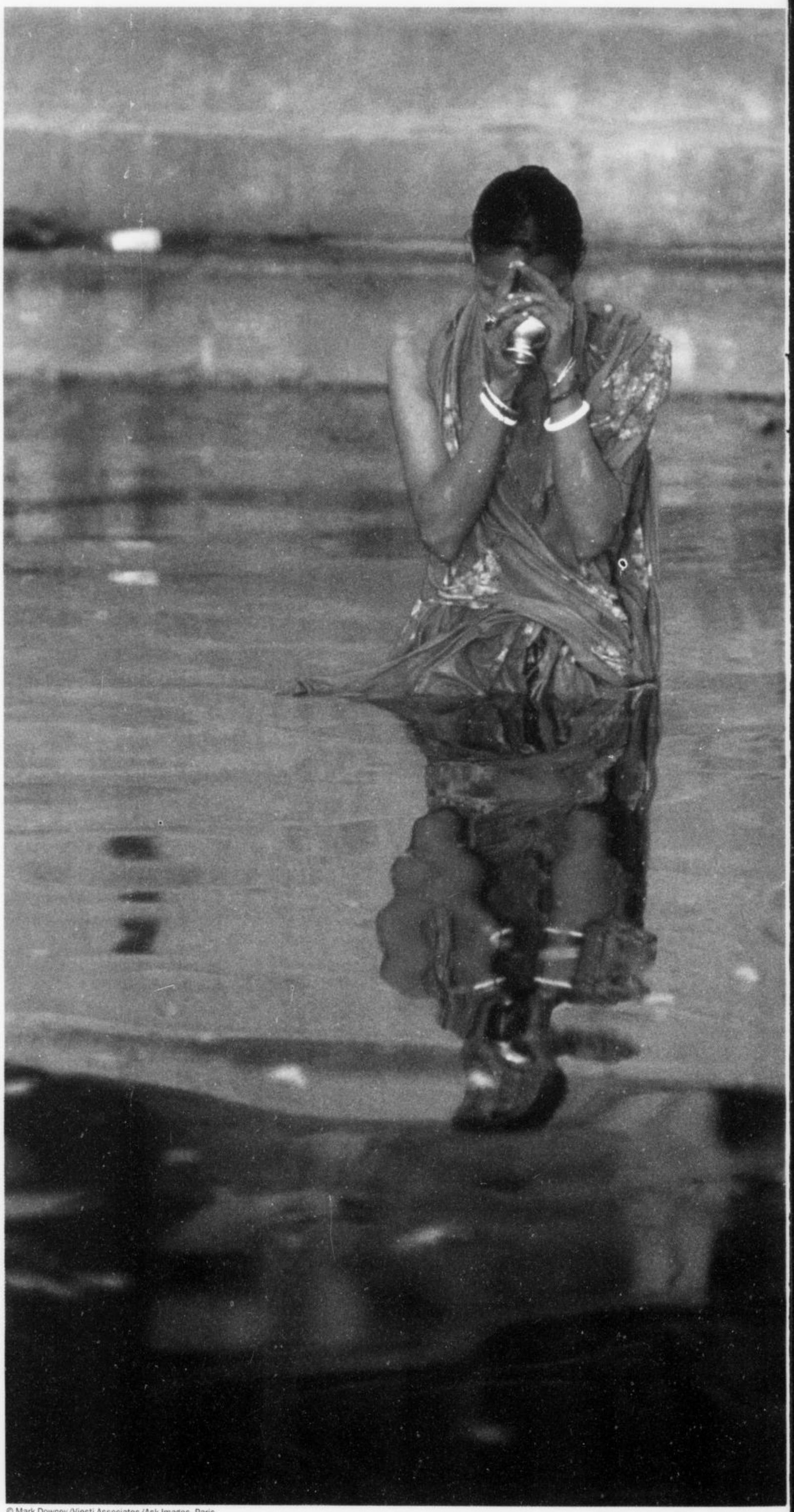

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A pilgrim takes a ritual bath in the Ganges at Benares (India).

month by month

by Bahgat Elnadi and Adel Rifaat

Who can fail to wonder about the mystery of the hereafter?

Even those who do not believe in an afterlife feel driven to ask themselves why so many others do. Materialists, for example, view such a belief as a response to the travails of life on earth. The promise of a hereafter replete with everything that has been lacking in this earthly life compensates for an earthly existence bereft of hope and mired in poverty, ignorance and fear. In other words, the afterlife is a necessary illusion.

Most religions, however, regard the hereafter as the supreme reality—although they do not all visualize it in the same way. Monotheists link the soul to a single life on earth and see the hereafter as a place where a terrifying last judgment—ascent into Heaven or descent into Hell—is made on human beings. Animists regard the beyond as simply the other side of the here and now. They would maintain that life is a cosmic principle which both encompasses and transcends individual births and deaths, enfolding us all together in time and space. Believers in reincarnation, on the other hand, consider afterlife to be the one intemporal and omnipresent reality. They see the manifestations of existence as incomplete reflections of this reality, illusions to which we cling because of desire and fear and through which we must pass one after the other in order to reach the ultimate principle.

But experience of the beyond does not necessarily have anything to do with organized religion. Descriptions of the so-called near-death experiences (NDEs) undergone by millions of people in many countries who have been revived from "clinical death" are strikingly similar. Irrespective of their religion, most of those who "return" are convinced that they have seen a light beyond, which has removed their fear of death.

The NDE contains echoes of a more profound experience, the spiritual quest pursued by mystics since time immemorial. All mystics, whatever the religious tradition to which they belong, describe a state of beatitude that transcends not only religious particularities but all imaginable forms of expression. It exists outside ordinary awareness based on the five senses, a normally functioning brain, the use of language and the expression of an ego. And yet all those who have attained this state of grace testify to its manifest and incontrovertible authenticity. Incontrovertible yet surpassing all understanding because of its links to a Reality beyond time and space, a Life that flows eternally within us and joins us to the Whole which is also part of our innermost being.

This ineffable state, as Paulo Coelho suggests in this month's interview, may be revealed to the simplest of mortals as long as they remain true to themselves on a lifelong journey to self-fulfilment. ■

Africa: the breath of life

BY NIMROD BENA DJANGRANG

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In African tradition, the material and spiritual worlds are contiguous

At some time or other, every schoolchild in French-speaking Africa has recited this poem:

Listen more to
Things than to people
The voice of Fire can be heard,
Listen to the Voice of Water
Listen in the Wind
To the sobbing bushes:
It is the Breath of the Dead Ancestors,
Who have not departed
Who are not beneath the Earth
Who are not dead.

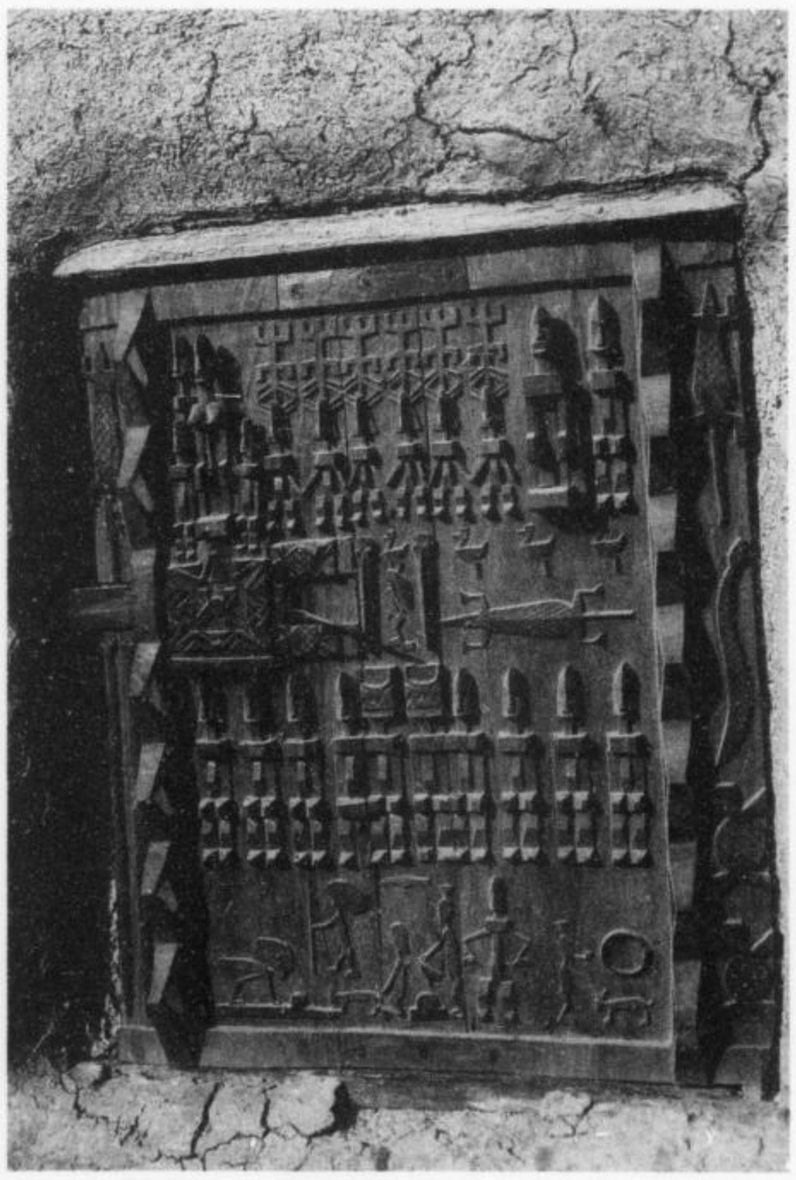
The Senegalese poet Birago Diop (1906-1989) called this poem *Breaths*, to describe a person's space. All beings everywhere overflow the place where they are, surpass their specific location, have more to them than their body. Only a single side of a person is ever visible, while the other remains invisible. This division also explains the importance of the shadow that a person bears, a shadow or nether side of the body. Looked at in this way, the beyond is less a metaphysical notion than something rooted in tangible reality, its soul, energy and *Breath*.

Diop's poem, like a well-sung song, is an invitation to understand the "Breaths" that invigorate "things": fire, water, wind, grass, bushes, huts, a woman's breasts, forests. It is a list of everyday things, an inventory of the rural African's environment. One criticism that can be made of Diop is that his use of capital letters for Fire, Voice, Ancestors and Earth is inappropriate. It is perfectly natural for the spirit of the dead or the gods to find embodiment in these phenomena. In the African tradition, the gods are usually approachable.

At home with the gods

The gods are the *breath* of the universe. African religions could be described as an attempt to define nature in terms of vital force and harmony. This is why the word animism is often used to describe them. The poet invites us to listen to the "Voice of Fire", the "Voice of Water" or the "sobbing bushes" because they are the crucible of energy, the place where the world's harmony prevails.

Into the intangible content of "breath" comes a fragment of the cosmic force which underpins the natural equilibrium. In West, Central, Eastern and Southern Africa, human beings are regarded as an integral part of nature. The idea of dominating or using nature does not exist. Religion is about increasing the cosmic energy of which human beings are a constituent part. Lack of respect for nature is seen



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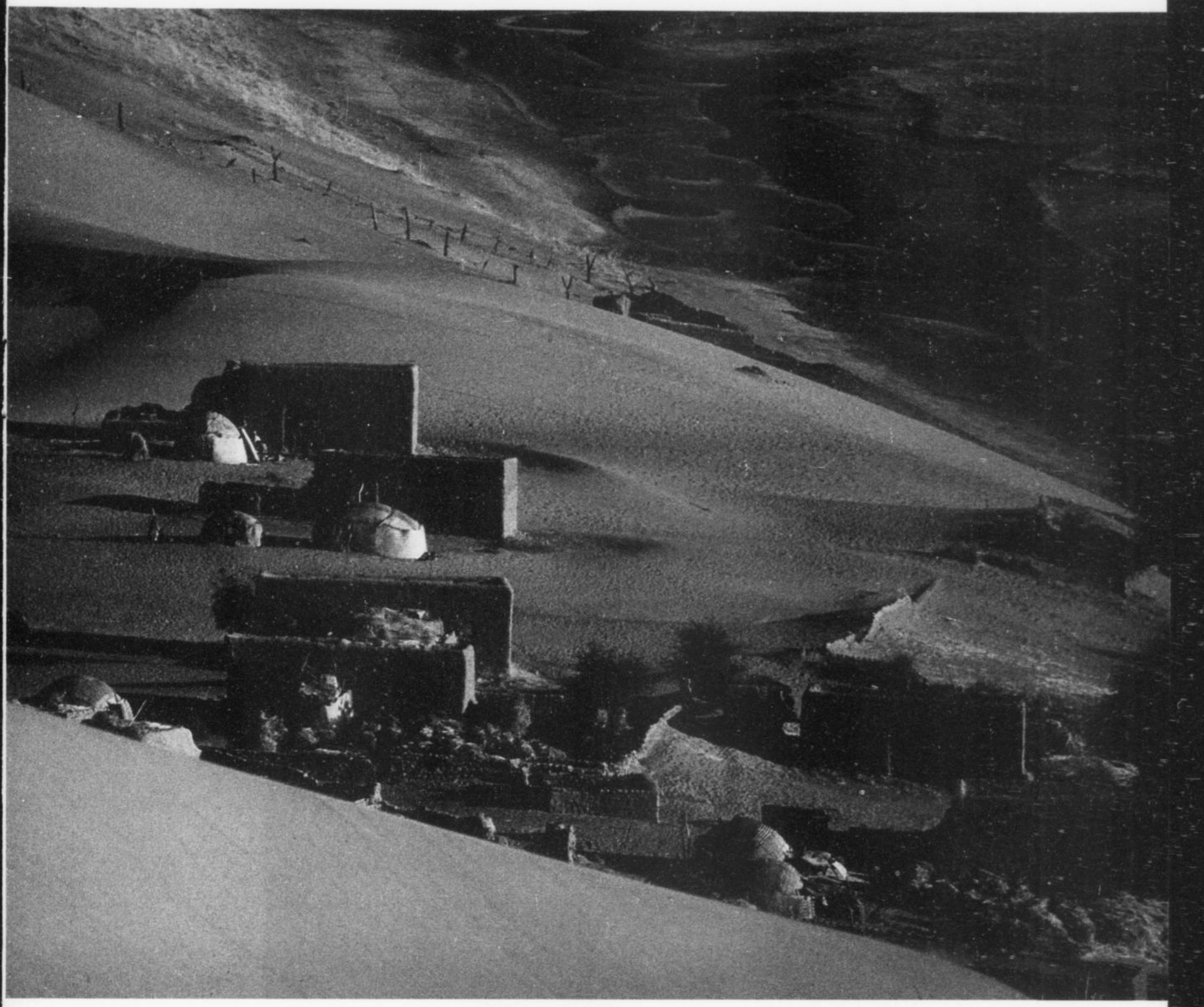
Left, carved mythological figures adorn the door of a Dogon granary (Mali).



A village among the sand dunes in the region of Gao (Mali).

as an energy failure or breakdown. There is no such thing as sin or blame. Sacrifices are intended to repair the field of living forces.

Nobody is exempt from this system. In the voodoo religions of the Gulf of Benin, a priest-medium who can no longer attend to the replenishment of energy because of illness or old age is simply done away with, because his incapacity imperils nature and society. It is possible for the flame of the world to be extinguished, but this must not be allowed: the flame must burn for ever.

As we noted earlier, the "flame", "breath" or natural energy is not something "beyond" the world, but rather the "secret" of the world, its most intimate part. Elsewhere, Diop writes that *"Those who are dead have never departed/They are in the Shadow which lights up/And in the shadow which deepens/They are in the tree that rustles. . . /They are in the Hut, they are in the Crowd/The dead are not dead"*. In a sense, the visible world seems only to connect with its invisible counterpart, so that the dividing line between life and death is erased. The "visible" must keep watch over the "invisible", and the "body" over "breath".

So there are only the living, visible or invisible. Life is so constituted that the visible owe gratitude and goodwill to the invisible. This is why prayers to the gods and the spirits, and the sacrifices owed to them, are made with great discretion; there is no need for altars or monumental temples. Ritual and other religious practices are performed at home, with ▸

▸ everyday food—grain that has just been harvested and water that is sprinkled on the dry ground as a libation before people drink.

Worshipping the dead

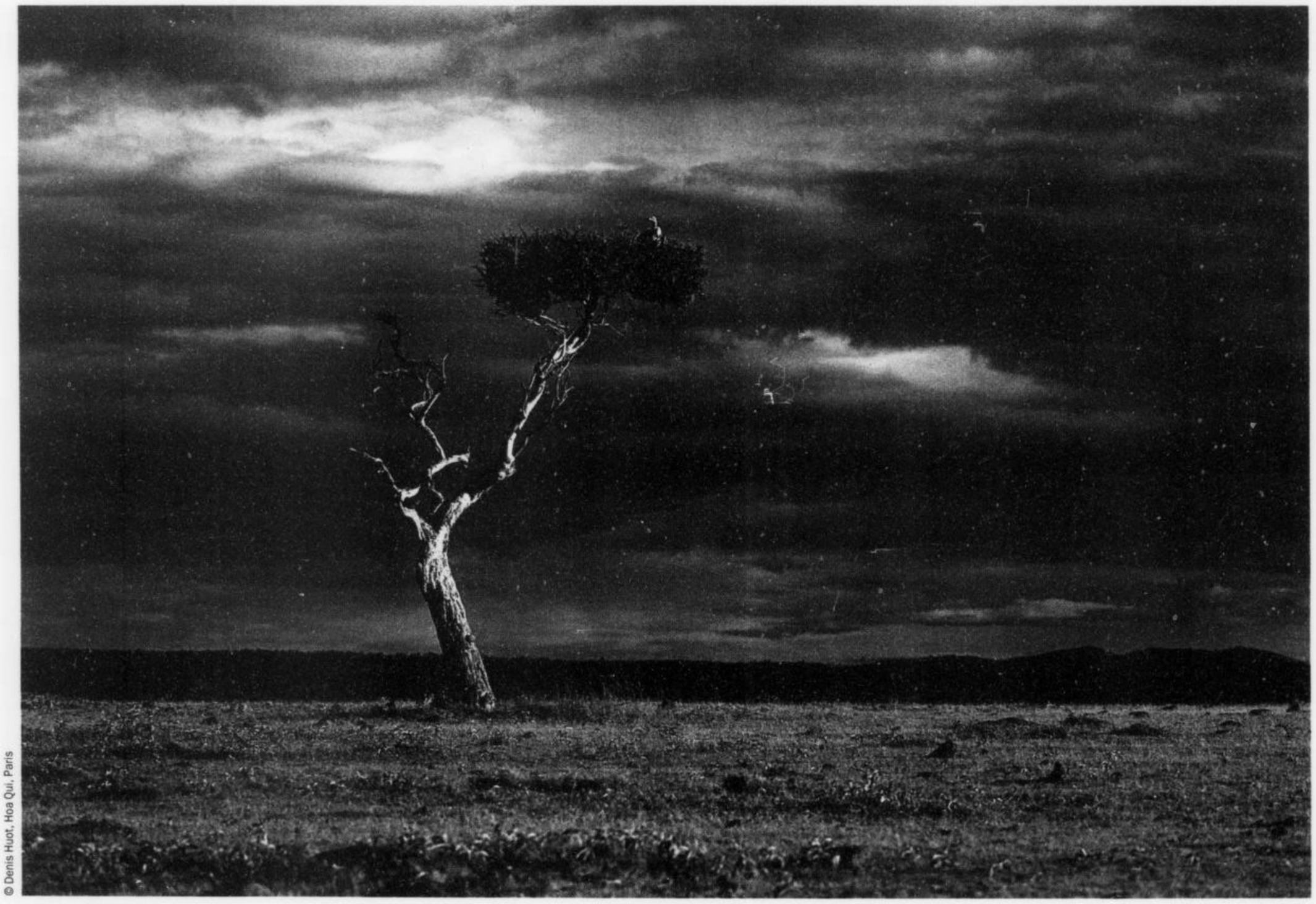
Looking more closely at the poem "*Breath*", we can see that it contains intimations of the immortality of the soul. Or at least this is hinted at. We usually think of breath as being as inconsistent as the soul, which we imagine as something indeterminate, hardly even air, "virtual nothingness", as the French philosopher Vladimir Jankelevitch called it. This "virtual nothingness" distinguishes the immaterial nature of the soul from absolute nothingness and denotes a soul which vegetates, thereby surviving the disturbances caused by the coming of death.

These moments when the soul "vegetates" outside life are not a form of purgatory. Exiled between heaven and earth, the soul cannot take refuge in God, who is not interested. The legends of the Dogon people of Mali tell how God went away after creating the world, never to return. The Xhosa of South Africa regard God as not only inaccessible but unconcerned about human beings, who have to fend for themselves from the moment of their creation. Hence the malicious urges of the souls exiled between heaven and earth. If they make a baby, a hunter or a confused rich man ill, it is because they are asking to come back to life. This happens when they become someone's "sponsor" or "ancestor"—in other words the surplus energy of the living.

This is how people tune in to the strength, the *breath* of the universe, which is "physically" speaking an "organ" wafting air that is cool, or at least damp. In many African languages, the same term is used to designate the spirit, the act of breathing and the faculty of thought. The dead too want to "breathe". Their transition from the other side of life is evidence of what they were: like efficient "functionaries" they have fulfilled their obligations to life. Thus, if they want to become living creatures again, in other words ancestors, altars and sacrifices must be made for them, followed by regular, permanent rituals.

Sacrifice renews the vital force of the dead, restoring balance to the world in general. "The dead are thirsty", say Dogon "initiates". The living are called upon to nourish the dead. In so doing, they prevent the dead from exhausting their energy, which in this instance is described as "thirst". This "thirst" disturbs families which have not yet built altars to hon-

"In Africa, human beings are a constituent part of cosmic energy". Below, the Masai Mara National Reserve, Kenya.



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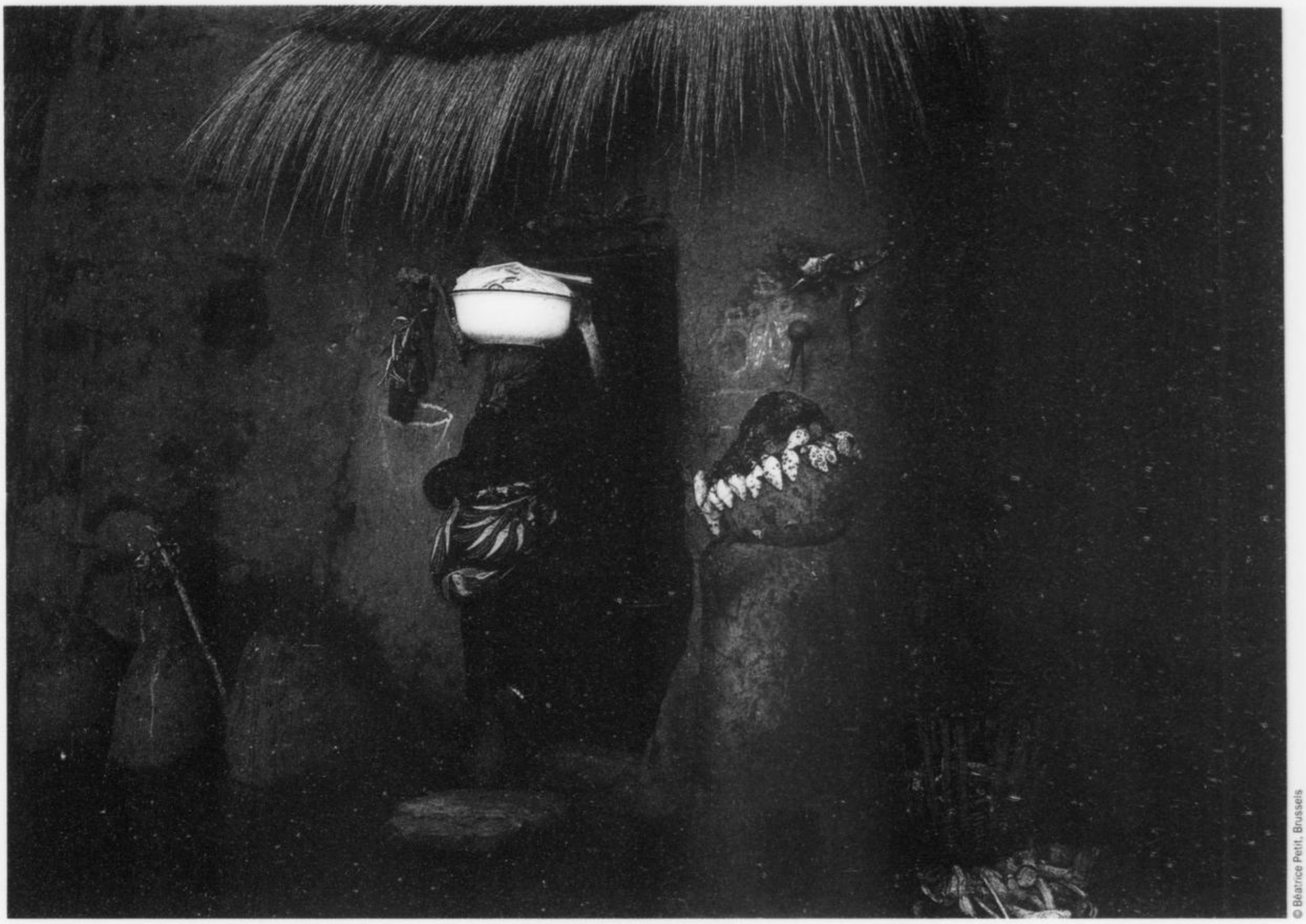

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Entrance door to a fortified farmhouse, or *tata*, of the Somba people (Benin). Outside the house, protective conical altars, trophies and fetishes are used for sacrifices to the gods and ancestors.

our their dead. Failure to do this puts the dead in a delicate position and the living do not fare much better. Uneasiness and tension build up in such families, which are destined to suffer illness or accidents.

At this point, a mediator appears in the shape of the village soothsayer or sorcerer. He tells them that ancestor worship is their way to salvation. The ancestors must be brought back to life by "breathing" into them the energy contained in the blood and food that are indispensable to the living. For as long as the dead remain unhonoured, they will always be troublemakers who disturb the peace of the living. In order for them to become acclimatized, they must be allowed to "leave death behind". There is a "no-man's-land" that is beyond life and just short of death. Removing them from this limbo is the only way to completely restore them to the status of the living.

As the French ethnographer Marcel Griaule noted, African religious thought is a hymn of praise to the restorative powers of water. Water is the breath and the rich soil in which something can take root and give birth to all aspects of life. Thinking about an afterlife is the act by which the living and the dead drink living water from the same gourd. ■

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A 19th-century bronze Dogon sculpture of an ancestral couple (Mali).

© Charles Lénars, Paris

China: a down-to-earth hereafter

BY FRANÇOISE AUBIN

In Chinese civilization, the dead, the gods and the living have sound practical reasons to keep in contact

Chinese civilization has never held a hard-and-fast view of the hereafter, although some aspects of it have never changed. The gods are believed to be all-pervasive: they are an immanent part of the earthly world, and if carefully handled they can help fulfil human aspirations to material well-being. In Mediterranean societies, on the other hand, the gods (or the one God the creator) are transcendental and live outside the perceptible universe. According to another time-honoured Chinese tradition, the human soul is divided into a series of superior souls, destined for a spiritual future after death, and a series of inferior, material souls linked to the corpse and the grave.

When China was united into an Empire in the third century B.C., popular expectations of the afterlife were couched in terms of a rather dismal sojourn at the springs of the Yellow River. Those who could do so tried to avoid this fate by engaging in a frantic quest for immortality and in mystic journeys under the guidance of a Taoist master. The disciples of Confucius, on the other hand, sought only to achieve a state of moral righteousness with which to serve the ruler. They regarded immortality only as an allegory for mental purity.

Between the third and sixth centuries A.D., the introduction of Buddhism revolutionized the religious landscape, and the different religions began to adapt to each other. The Indian religion soon became a Chinese one as its writings were translated and as it came to absorb local beliefs and practices. Taoism, for its part,

On the occasion of a Taoist festival in Singapore, "paper money" is burnt as an offering to the dead by their descendants.

made substantial borrowings from Buddhism. Meanwhile, the popular religion practised daily by lay people of all social classes took from Buddhism and Taoism a pantheon of protective gods, and Confucianism continued to uphold filial piety as the model of all virtue.

Underworld tribunals

By about the ninth century, the shape of the hereafter had been clearly established. A man is endowed with three souls or series of souls. Women are rarely mentioned, except to confirm that they follow their menfolk in the next world, as they do in this one, although usually without laying down their lives to do so.

Of the three souls with which men are endowed, the *hun* or spiritual soul remains attached to the gravestone in memory of the deceased on the family altar and receives tribute from the descendants in the form of offerings of incense and food. The earthly soul, *p'o*, resides in the grave, and is also sustained by the gifts of descendants during festivals honouring the dead. The third soul is tried by a series of tribunals in an underground world located, according to the most common tradition, on the Eastern Sacred Peak of T'ai-shan, in Shantung province.

The pragmatism of Chinese civilization shows itself here. The underworld tribunals, although Buddhist in origin, are structured and run on the lines of imperial tribunals. The dead person is held there as a prisoner accused of a crime. But, as in earthly justice, a favourable verdict can be bought from an underworld tribunal with paper money handed over by the family of the deceased.

The time spent beyond the grave is not an everlasting confinement but a period of transition, varying in length, between two earthly episodes. The usual period is three years, except in the case of particularly heinous crimes, which earn the culprit a longer roasting over the fires of hell. Usually, and especially if the descendants have been moved by their filial piety to pay the proper price for their salvation, the deceased awaits the end of his three years in a purgatory similar to the earthly surroundings to which he was accustomed. All his needs are provided for by his pious descendants, who burn for him all kinds of objects in the form of paper—a house, furniture and money and even, these days, a car and a television set.

The burning of paper objects is the standard way of transferring goods to the hereafter. Hell's treasury carefully counts the paper money sent to it by fire. In exchange for good treatment by his children and grandchildren after his death, the deceased shows them that he is an effective guardian ancestor. In accordance with the Buddhist theory of transmigration of souls, the rulers of the hereafter allow him to return to earth, and he is usually reincarnated in his own line of descendance, in accordance with the Confucian theory of the supremacy of the family.

A seemly death is one where the deceased leaves behind enough descendants and property to feed the souls of the family. A soul has to be properly nourished with meat and rice before it can be benevolent. If spirits are hungry, they come back to earth and roam about as ghosts which take pleaure in attracting misfortune. Various methods of countering their malign influence have been found, from the "spirit wall" blocking off their entry to villages to fireworks and mirrors meant to scare them off and a general gift of food which they are offered when the jails of hell open their gates to allow the inmates a day out on the midsummer Feast of the Spirits which has become popular not just in China but also in Viet Nam, Japan and Korea.

Gods from the grassroots

Between the ninth and thirteenth centuries, the services of these forlorn souls were gradually enlisted so that their violence could be channelled for the benefit of the community which worshipped them. They thus became ▸

The turtle and the snake, symbols of *yin* and *yang*, feature on a contemporary Chinese print (right).

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▸ the guardians of the supernatural good order and the material welfare of a particular location. This grassroots creation of a vast pantheon of protective gods, most of whom had met violent deaths in wars or accidents, is a key phenomenon whose importance in the Chinese notion of the hereafter has only come to be appreciated in recent years. It meant that lay people took over management of the supernatural, which had hitherto been the preserve of specialists in Taoist or Buddhist liturgy, and thereby established direct two-way links with the deities.

If the gods really want to live, they must be effective and protect the community which sponsors them (and which they sponsor in return) from such dangers as epidemics, robberies and floods, and grant the wishes of the faithful as to their descendants, success in examinations, healing and wealth. If they do not do this, they are abandoned by everybody and are forced to return to the ranks of lost souls. The most effective gods, on the other hand, receive imperial recognition in the form of an honorary title which may be followed by a promotion in the hierarchy of nobility if they merit it.

Between the tenth and the thirteenth centuries, when the coastal area of southern China became much more prosperous, gods were born and travelled around with pilgrims and merchants. They were honoured by roadside sanctuaries and were transformed themselves as new needs grew. At the time of the invasions which engulfed northern China, the people of the south called more fervently than ever on warrior gods and protectors.

Since the start of the present millennium, the gods have taken firm control of all strategic sites. In towns, the god of ditches and walls is of key importance. In households, the gods of the cooking-stove, the threshold and the cesspit hold sway. Mass-produced coloured New Year prints showing the gods and auspicious scenes are put up in every home and are changed every year.

The heaven of the Jade Emperor

The emergence of all kinds of gods during the second millennium revolutionized the notion of the hereafter, which was softened and humanized, especially when female gods become increasingly important from the fourteenth century onwards. It also offset the hell-like hereafter, with its repression and red tape, with a heavenly one comprising a court of kings and emperors benignly presided over by an old god from ancient mythology, the Jade Emperor.

The lesser local gods, however, stay close to everyday life, mounting guard in houses, towns and villages and at roadsides. When the god of the stove, the main household divinity, makes a detailed report at the turn of the lunar year on the behaviour over the past year of all the household's members who have fed him and over whom he has kept watch, he does not descend into hell but flies up to heaven, to the Jade Emperor's court.

Heavens belonging to the two established religions (those with a liturgy supervised by religious specialists, in contrast to popular religions) have also existed at least since the sixth ▸

Below, painting on silk by Korean artist Chai Mying Kyong (1567-1621) depicts a group of Immortals dancing with a crane. The 8 Immortals are mythological figures blending elements of Taoist, Confucian and Buddhist traditions.

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Opposite page, a 10th-century painting on silk from Dunhuang entitled the *Paradise of Amithaba*, or the "Buddha of Infinite Light". At centre of painting, the seated Buddha is shown preaching.

century. The Taoist heaven, centred on Mount T'ai-shan, the holy mountain containing the entrance to hell, is populated by immortals, who are delightful and elusive beings.

"Their skin is as fresh as crisp snow, they are delicate and modest as virgins. They eat no grains, but breathe the wind and drink the dew. They climb onto the clouds and the wind and fly off astride giant dragons to disport themselves beyond the four oceans [i.e. the inhabited world]." All Taoists, who practise asceticism, who have renounced worldly cares and who fast and eat plants from the mountains, aspire to such a passage to immortality.

Buddhism offers two kinds of heaven. One, messianic and apocalyptic, is the Future World, presided over by the Buddha Maitreya, hopes of which have inspired the ideology of countless popular uprisings throughout history. The other is a heaven which offers salvation—the Pure Land, located in the West and adorned with flowering lotus and precious stones, which the Buddha Amithaba opens to all the male faithful (women are excluded) who have made a sincere appeal to him.

However, this enchanting, ultimate paradise was prevented from taking serious root in Chinese society by resistance from local beliefs. The notion of irrevocable salvation, putting an end to repeated reincarnations, offended the feelings of devout sons who venerated their father's soul in the gravestone and of families seeking souls to perpetuate themselves through reincarnation in future generations. ■

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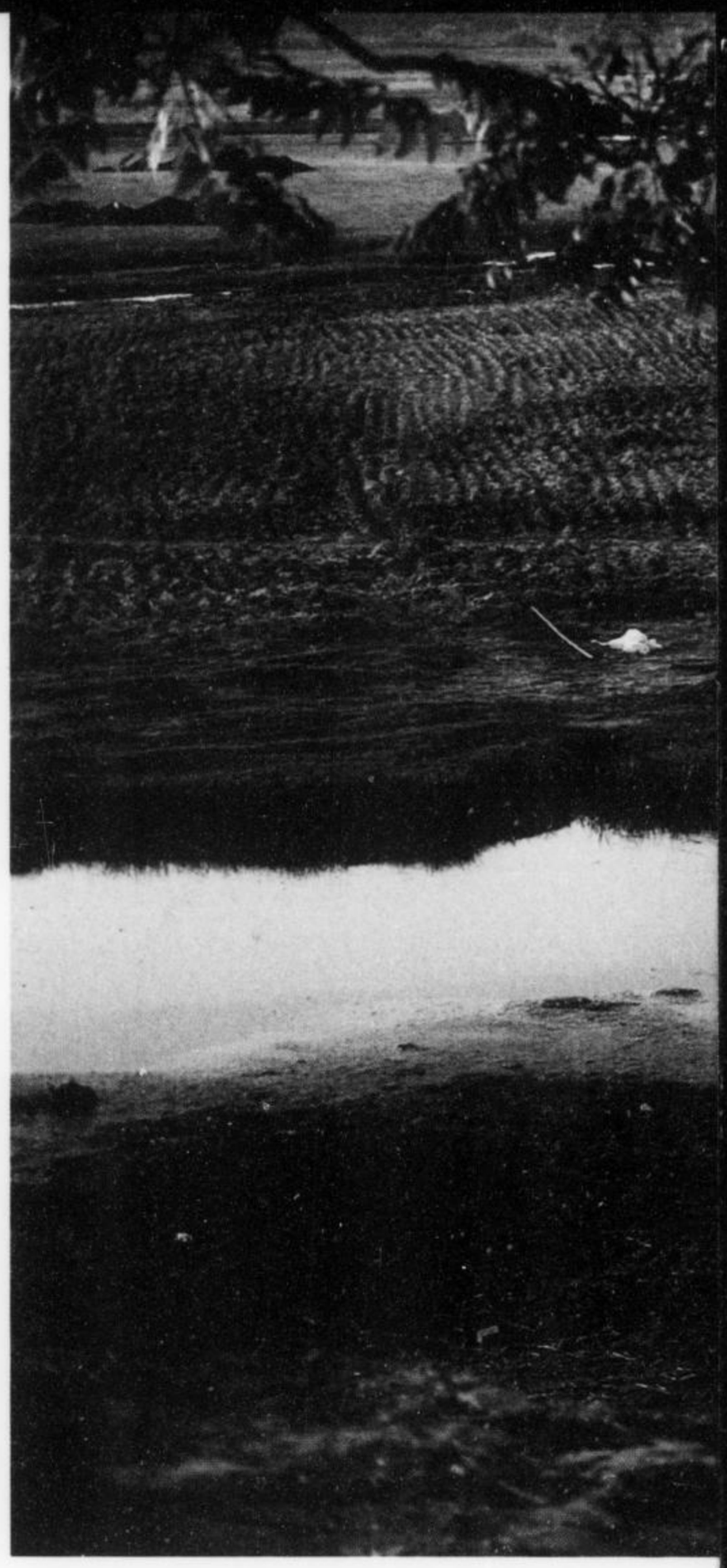
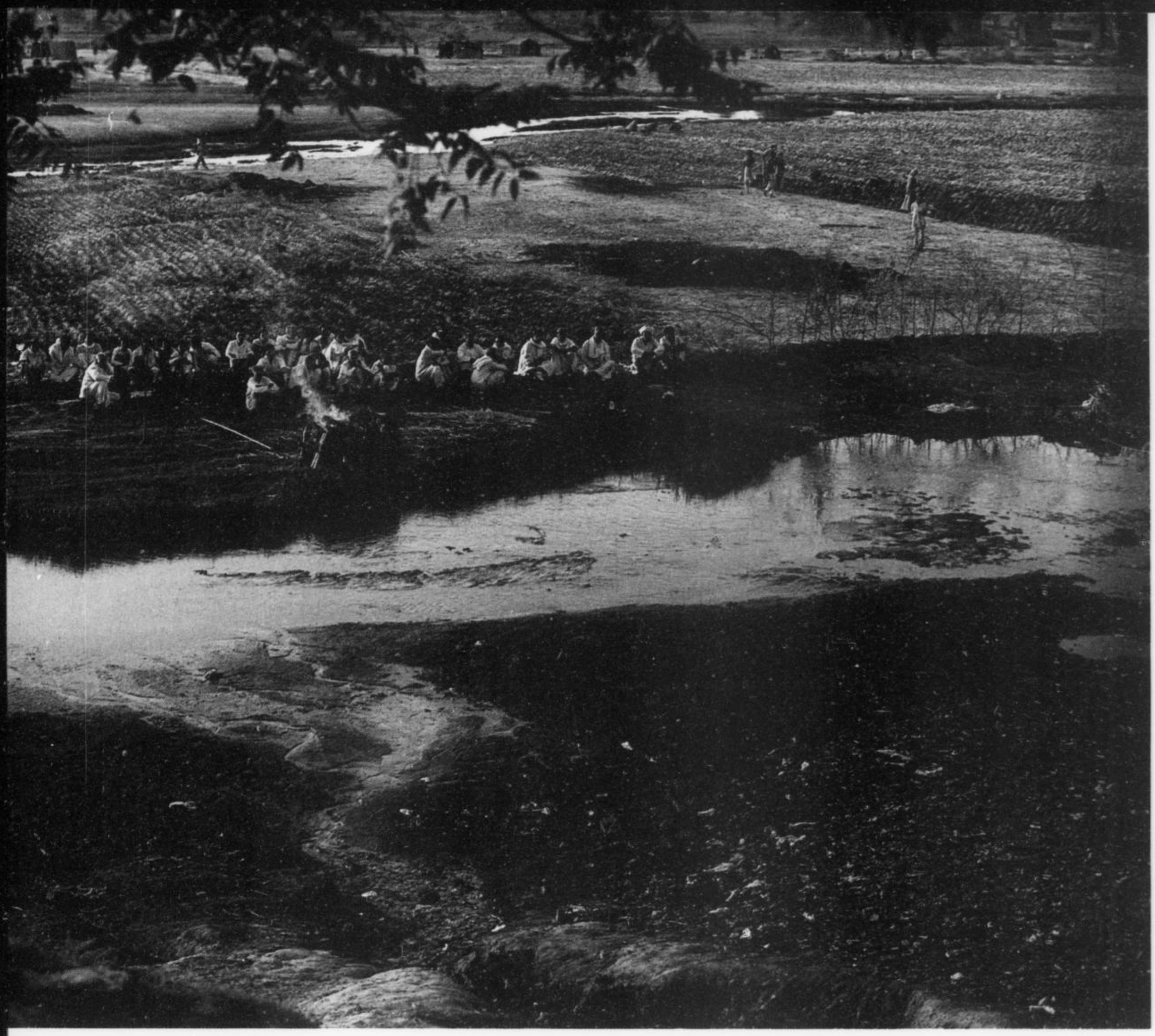
Household gods pictured on a contemporary Chinese print.



India: cycles of birth and rebirth

BY A. S. GNANASAMBANDAN



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What role has the time-honoured belief in reincarnation played in Indian society?

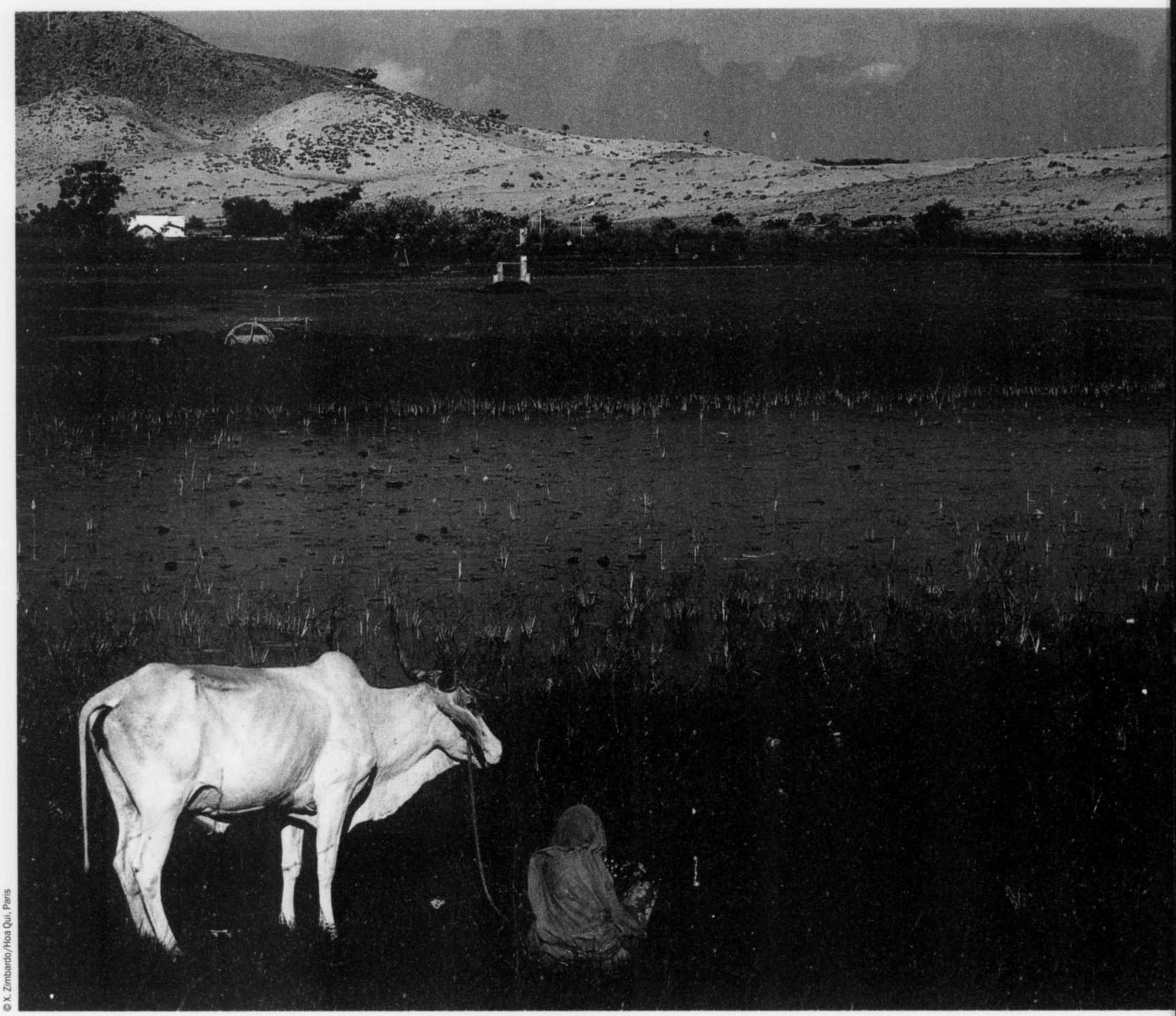
Once upon a time a snarling dog was standing outside an Indian temple. Another dog came up to him and asked why he was so angry. The first dog replied: "I was a priest in this temple in my previous birth. The trustee of the temple, a powerful man, goaded me into becoming his accomplice in the theft of the jewellery of the goddess of the temple, and as a result I am now born as a dog. I am waiting to see that fellow. As soon I see him, I shall pounce on him and tear out his throat. The second dog said: "Please don't do that. I was that trustee in my previous birth."

This story and others like it were often told by Indian sages to illustrate the belief, common to all schools of Indian philosophy, that life is a cycle of births and rebirths. After their death, human beings are reborn into this world in various forms; all of them have passed through several earlier births and will pass through several future births. What they think and do in this life will determine the form (human, animal, insect, etc.) in which they will live their next life, as set forth in the doctrine of Karma (action) and rebirth. "Accordingly as one acts, accordingly as one behaves, so does one become in the next life," says the ancient treatise known as the *Brihadaranyaka Upanishad*. "The doer of good becomes good, the doer of evil becomes evil. One becomes virtuous by virtuous action, bad by bad action."

What happens to the soul after death and before rebirth? Each school of Indian philosophy has its own answer to this question, although they all agree that there is a celestial world and that those who do right things and live a godly life go to it and enjoy its benefits while awaiting their return to the terrestrial world.

Because there are differences in the amount ▸

Above, ritual cremation on the banks of the Sabarmati River outside Ahmedabad, a town in Gujarat State (India).



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Lake Brahma in the Thar (Great Indian) desert, Rajasthan.

▶ and quality of good and evil that people do, the upper world is divided into seven regions or *lokas*; the underworld where evildoers go is also divided into regions. The doers of good go to one of the seven different upper worlds depending on the quality and quantity of the good they do. The lowest upper world, for example, is reached by those who do good and lead a pious life, performing the prescribed rituals to propitiate the gods, but do not control their senses and mind. To go to a higher upper world one must control one's senses and one's mind, and as far as possible one's inner mind also.

Only a human being can achieve emancipation (*moksha*) from the cycle of birth and death. This fate is reserved for the select few (*jnanis* or *yogis*) who are unaffected by worldly things or by the pairs of opposites (*dwandas*) such as suffering and happiness. According to the *Bhagavad Gita*: "The serene one absorbed in the Atman [eternal self] masters his will, He knows no disquiet in heat or in cold, In pain or pleasure, In honour, or dishonour." Only someone who transcends the pairs of opposites attains the lotus feet of the Lord.

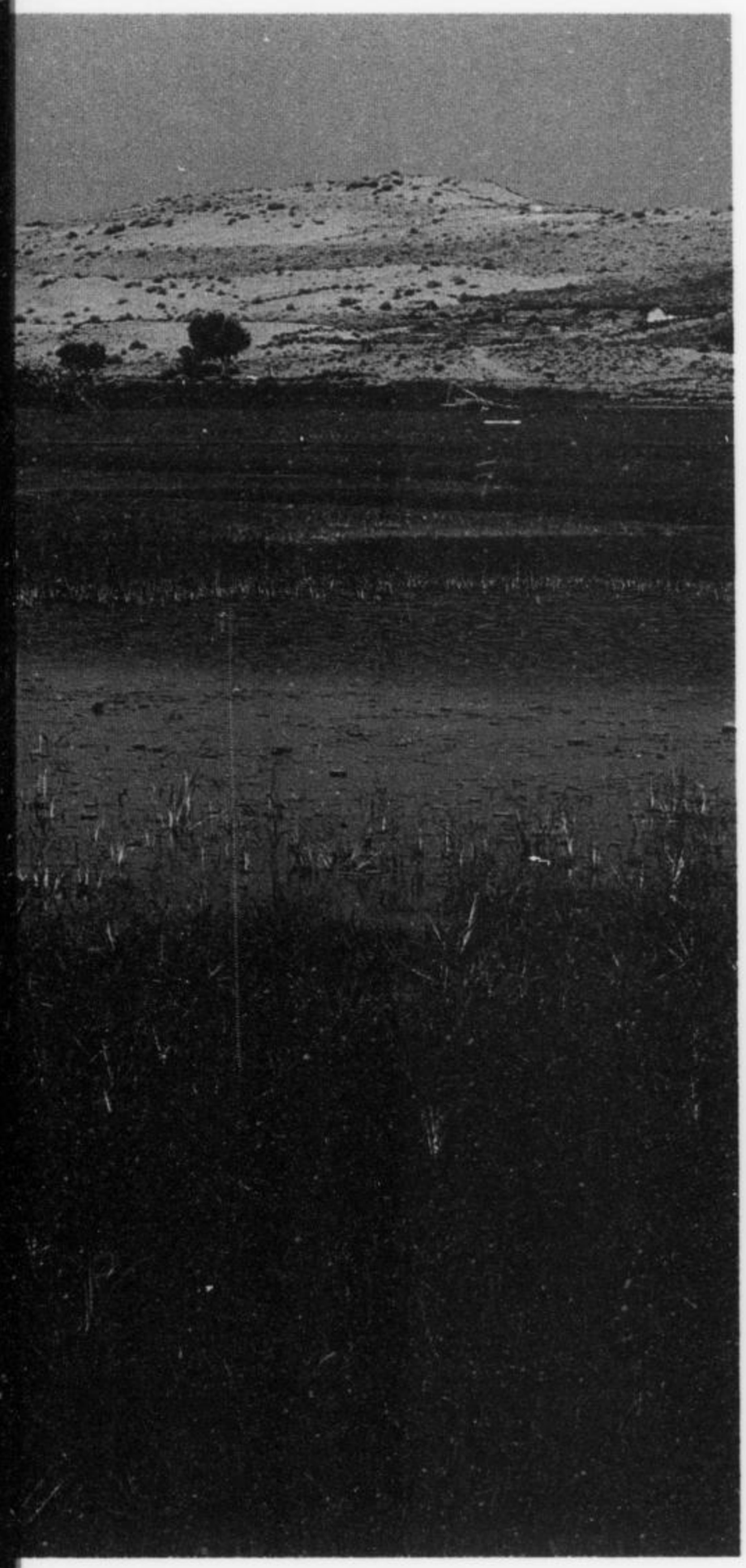
Even if a person's soul reaches the seventh upper world it is still not entitled to achieve emancipation if a very small amount of desire—even desire for emancipation—remains in his mind.

"Eradicate desire," wrote the southern sage Tirumoolar.

"Eradicate it even if the desire is to attain the lotus feet of the Lord.

The more you desire the greater will be your suffering."

Some believe that the life which goes out of the body has a form, the *sukshma sarira* or astral body, with which we accede to the upper world or lower world according to the good or bad that we have done in this one. Another



belief is that a dying person's last thought gives an indication as to their next birth. This is why Indian philosophy stresses that you should go to bed with pure thoughts, repeating the name of the Lord. If you die in your sleep, the purity of your last thought will ennoble your soul through the next birth which will certainly be into a higher spiritual life.

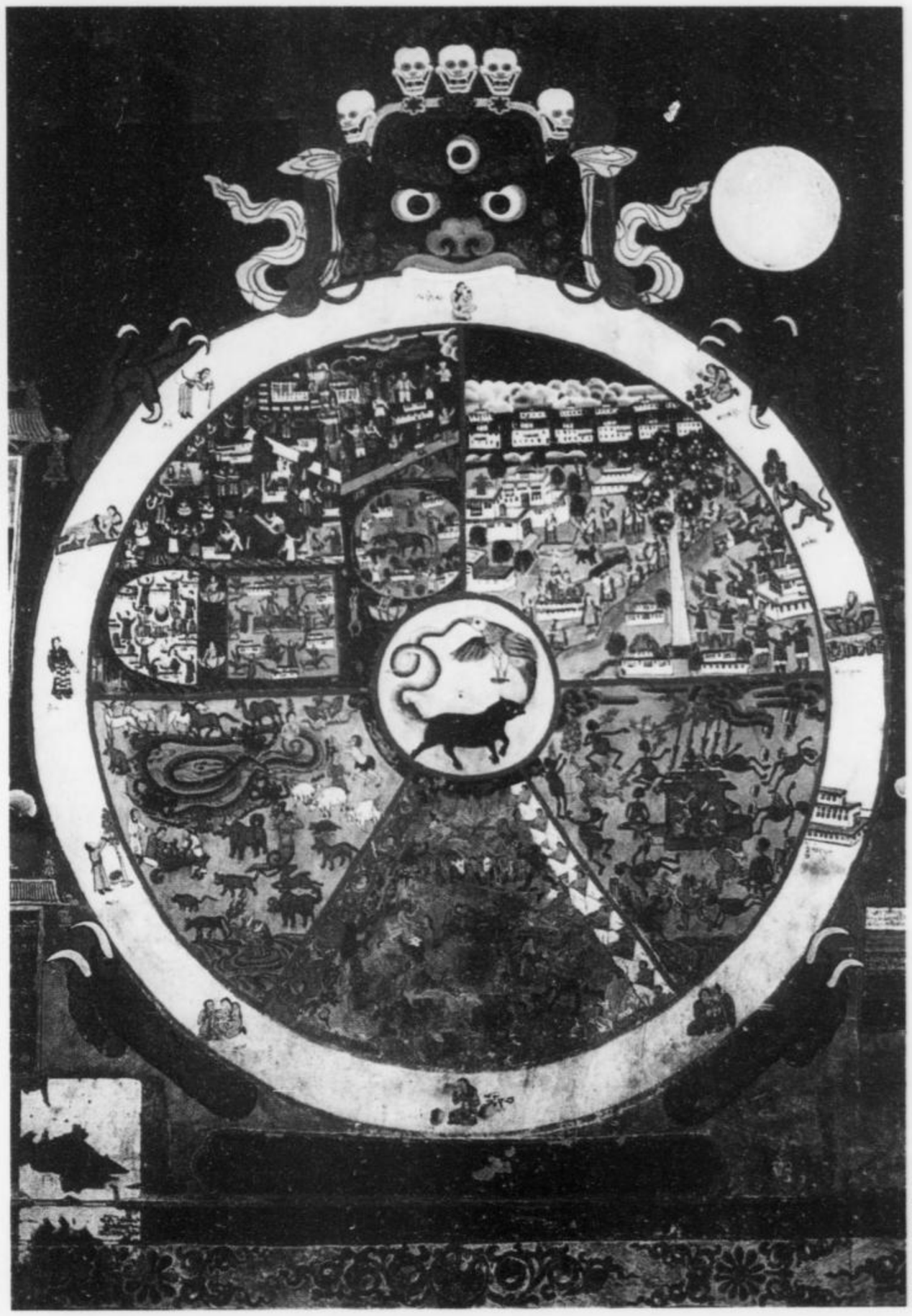
Karma and caste

How far have these philosophical tenets and beliefs been practised in society? Traditional Indian society was broadly divided into a minority of intellectuals and philosophers and a majority which fully accepted their teachings about the cycle of birth and death. Even today, illiterate villagers say that someone who harms another person will be born as a street dog in his next birth.

The doctrine of Karma and rebirth has long influenced people to do what would lead them to a good afterlife. It might be said that they were motivated by a foolish fear of the other world, which may or may not exist. But what about the postulates of modern science regarding the atom, electromagnetic force and energy, which cannot be perceived by our senses, but whose existence we accept because we can see the results of their actions?

There is however one big difference between the findings of modern science and the Indian "life chain" philosophy. The Darwinian theory of evolution postulates that life can only evolve upwards, whereas according to Indian philosophy, those who have reached a very high spiritual level can come down in the next birth to the lowest level if they commit an action in a fit of emotion or anger. There is no guarantee that people will always rise from one birth to the next. Their next birth is decided by their thoughts and actions in the previous one and by the Karma that they have already accumulated. ▶

Below, a painting of the Wheel of Life, one of the most ancient Buddhist symbols. Gripped by the claws of Yama, the Lord of Death, the image depicts the 6 worlds of potential rebirth.



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This deeply rooted faith in the life chain has shaped Indian society from time immemorial. As an explanation of why some are more talented and enjoy higher social status than others, and why some suffer while others enjoy good fortune in this life, it led people to accept what was inevitable and at the same time enjoy peace of mind. When people feel that they alone are the cause of the good and evil which befall them, they do not try to blame others for their situation. In the words of a Tamil poem written in the third century B.C.: "All places in the world are ours, all human beings are our kinsmen; good and bad which befall us are not inflicted by others."

However, as the centuries went by, an intellectual hierarchy began to rule society and its members realized that they could use the doctrine of Karma and rebirth as a weapon to subjugate the majority and thereby perpetuate their power. The caste system came to be twisted into an inegalitarian hierarchy based on birth. The higher castes began to assert that the lower castes in the hierarchy were meant to serve them. Since the majority of the lower rank were deliberately left without education and intellectual pursuits they had to accept this inegalitarian structure based on birth, which determined what work they should do in this world.

So for many centuries the theory of a chain of birth and rebirth helped perpetuate the inequalities and injustices of the caste system based on birth. Saint Tiruvalluvar's dictum that all souls are born equal in this world could not exert much sway over the majority of people because they were denied the capacity to read it and understand it.

It is hard to know how far modern Indians believe in the doctrine of Karma and rebirth and how much they think about it. Modern Indian society is a competitive society in which the pursuit of wealth is accompanied by many pressures and evils. And yet the majority of people still have a wonderful way of keeping their peace of mind. Of someone who acquires wealth by wrongdoing they are inclined to say peacefully: "Let him earn, he is not going to carry anything he acquires now into his next birth. He has to go empty-handed." ■

This article is an edited version of a longer study prepared for the *UNESCO Courier* by Professor Gnanasambandan.

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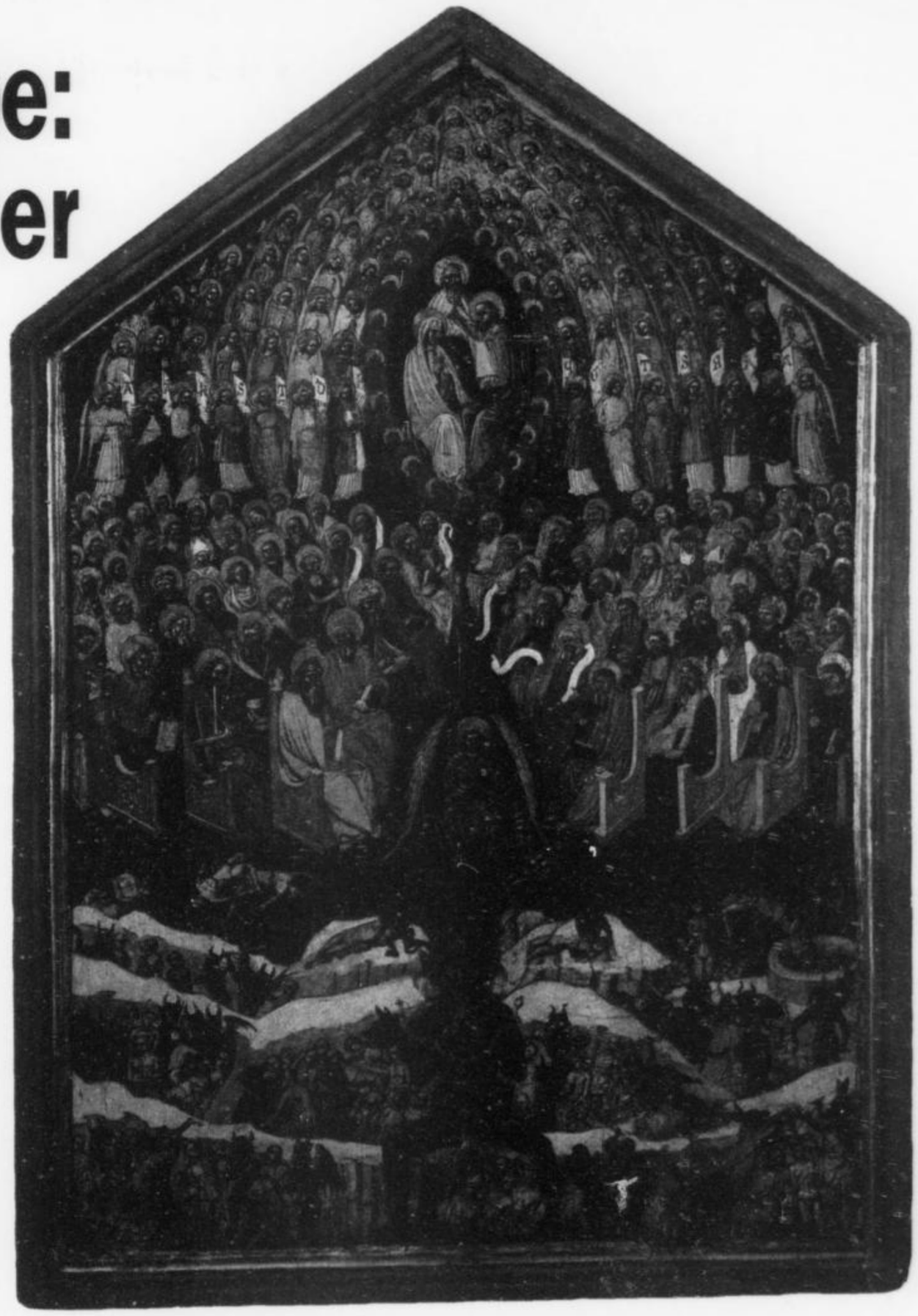
A 13th-century bronze figure of dancing Shiva from southern India. The supreme divinity of Hinduism, Shiva is both static and changing, destructive and creative.

Medieval Europe: the antechamber of eternity

BY JACQUES LE GOFF

The medieval Christian Church in Europe created a complex system of the afterlife which played on fear



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***Heaven and Hell*, a 15th-century painting of the School of Bologna (Italy).**

The view of the hereafter current among men and women in medieval Europe was largely the Christian one. Although it included elements borrowed or inherited from Greco-Roman paganism, from Oriental religions and beliefs, from the Old Testament and from Judaism, it was based mainly upon the New Testament, the Gospels in particular.

Christianity, with its doctrine of salvation, flourished in those early years of the Christian era that have been referred to as an "age of anxiety", and a preoccupation not only with what became of men and women after their death but also with the question of where they would spend the afterlife occupied a prominent place in it.

Christianity proclaims the resurrection of the body, of which the resurrection of Jesus after his earthly life ended on the cross is the exemplar and the guarantee. What happens to resurrected human beings depends on the will of almighty God, but in accordance with rules that He Himself has laid down, whereby the fate of the resurrected is made to depend on their conduct during their earthly life. They are consigned after the resurrection, which occurs at the last day, to different, opposite places in the beyond, in accordance with a binary system. The "good" live forever in a place of delights, Paradise, while the "bad" are doomed to dwell eternally in a place of torments, Hell.

A distinction must be drawn between Heaven and the earthly Paradise, its eternal mirror-image, Eden. Similarly, "Hell", as a place of torments for those damned eternally, is not to be confused with the infernal regions, closely resembling the Jewish *Sheol* and the Greco-Roman Hades or Tartarus, where the righteous who have not known Christ and thus could not be baptized (including Adam and Eve, the first human couple) wait for Christ to come and free them.

The precincts of Paradise

From the early centuries of Christianity and throughout the Middle Ages, the hereafter was the subject of a whole range of apocryphal texts and stories that grew up around the fringes of Catholic orthodoxy. This was one of the areas that most exercised the medieval imagination, inspiring many literary compositions and an abundant iconography that bear witness to the fertile creativity of medieval artists.

Christians had from the very beginning great difficulty in dealing with the Last Judgment/Hell/Heaven system. The situation of the two afterworlds in relation to the Earth was established soon enough: Hell was below the Earth and Heaven was above, in the sky. The terms Heaven and Paradise became synonymous, although for a long time the topography of the world beyond the grave distinguished several heavens, Paradise being "the highest Heaven". In general terms, two heavens coexisted: the natural heaven, or sky, knowledge of which was the province of science (the ▸

Middle Ages had borrowed heavily from the cosmology of Ancient Greece); and a metaphysical Heaven, the everlasting abode of God and the elect.

The two main questions posed by the hereafter concern the timing of the judgment whereby God consigns the departed either to Heaven or Hell, and the possibility of deferring the final reckoning to some point in the period between the death of the individual and the Last Judgment.

There were two opposing views, both of them accepted by the medieval Church, on the first of these points. Some held that all the deceased must await the Last Judgment at the end of this world to know their fate in the world beyond. Others held that God welcomed into Heaven those who were indisputably among the elect, the saints, immediately after their death. Either they were exempt from the Last Judgment or it was in their case a mere formality, a foregone conclusion.

Various answers were put forward to the question as to whether those destined to be among the elect would be able to await the resurrection in a specific place. In the early centuries of Christianity, such a place was imagined as a *refrigerium*, a haven of coolness, the very antithesis of the devouring fires of hell. According to another idea, which continued to be held until the thirteenth century and was frequently depicted in religious art, the elect-to-be rested in Abraham's bosom. In all these scenarios those so privileged after death would be spared punishment and suffering but would nevertheless be denied the supreme bliss enjoyed by those definitively admitted into Heaven, that of being accorded the grace to see God face to face, the beatific vision. The invention of Purgatory in the twelfth century was to overturn these conceptions.

Guided tours

Living mortals could learn, at least in outline, about Heaven and Hell from the meagre information supplied by the Bible, and especially the Gospels, and from the stories of those who had travelled to the world beyond the grave. These stories, originating in the Jewish and Christian apocrypha from the beginning of the Christian era, developed in the Latin West mainly from the seventh century onwards. They were the accounts given by those to whom God had accorded the grace to visit Hell and Heaven, often under the guidance of an angel or

© G. Dagli Orti, Paris/San Marco Convent, Florence

Above and opposite page, detail from *The Last Judgment* by the Italian painter Fra Angelico (1387-1455). Above, the Damned; opposite page, the Elect.

archangel, except for the celestial Holy of Holies where God abided, hidden from their sight.

The principal Latin accounts of these journeys take the form of visions granted mainly to monks (monasteries being regarded as places midway between this world and the next, between Earth and the hereafter). In the twelfth century, the account written by an English Cistercian of the knight Owen's visit to "St. Patrick's Purgatory" in Ireland definitively shaped the changed landscape of the afterworld by localizing Purgatory in a specific place.

As may be seen from the descriptions of Heaven and Hell in these stories, most Christian imagery of the hereafter was drawn from earlier sources. It owes little to the Old Testament or to the Jewish tradition, except for the two paradisiacal themes of the Garden of Eden and the celestial Jerusalem. Judaism makes no clear distinction between the grave and the world beyond it, and the Jewish hell, *Sheol*, is a grim and gloomy place that does not lend itself to description.

The main borrowings of imagery for the torments of hell are from India and to an even greater extent from Iran and Egypt. In ancient Greek mythology, Orpheus, Pollux, Theseus, Heracles, and Odysseus (in Book XI of the *Odyssey)* all descend into the underworld, but the main heritage in this respect is from Rome, namely from Aeneas' voyage into the infernal regions, in Book VI of Virgil's *Aeneid*. This was where the two abodes of the dead were reached, by first going down into the cavern that served as an antechamber, through the fields where the souls of the unburied dead wandered and across the river Styx, before turning either left into Tartarus (Hell) or right into the Elysian Fields (Heaven).

The main features of the Christian image of the world beyond had taken definitive shape by the early Middle Ages.

Torment and delight

To get there involved standing trial either collectively, at the Last Judgment, or individually. In the former case, the leading role was played by Christ, throned in judgment in a setting reminiscent of the courts of Ancient Rome, and verdicts were handed down after consultation of the books kept by the angels, in which men's good and bad deeds are recorded. In the latter case, the crucial moment comes with the weighing of souls after the resurrection. The Archangel Gabriel holds the great ▶

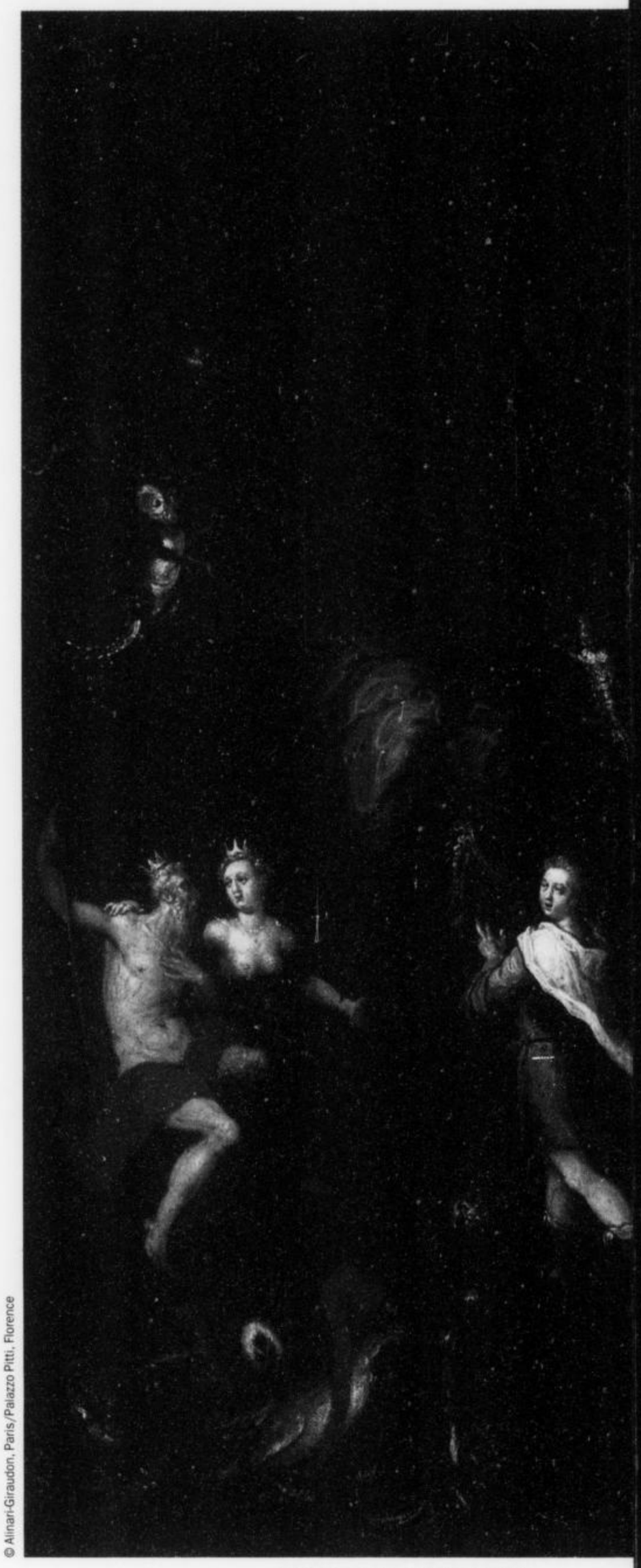
scales, while the gatekeeper of Heaven, St. Peter, and the Master of Hell, Satan, vie for possession of the soul by pulling down on one side or other of the scales. When the verdict has been rendered, the elect ascend into Heaven, where St. Peter opens the gate for them, while the damned are pitched into the jaws of Hell.

Heaven is a place of peace and rejoicing where the senses of the elect are delighted by flowers and light for the eyes, songs for the ears, fragrant odours for the nose, the taste of delicious fruits for the mouth and fabrics soft to the touch (since in their modesty the elect usually wear beautiful white robes, only a few artists portraying them as restored to the naked state of the innocent in Eden before the Fall). Heaven is sometimes shown as girdled with high walls of precious stones and consisting of concentric areas, also surrounded by walls, where the colours, the fragrances, the tastes and the harmonies become more and more delightful the nearer they come to the Centre, the abode of God, who holds the beatific vision in reserve. Whereas in Genesis Paradise was a garden, in keeping with the climatic conditions and the mythopoeic traditions of the East, in the medieval West, a world of towns ancient and modern, Heaven was generally conceived of as a walled city, on the model of the celestial Jerusalem, and it was strictly reserved for the righteous who had been baptized, baptism being the necessary, albeit insufficient, passport to Paradise.

The invention of purgatory

Hell is a place of inextinguishable flames that unrelentingly burn the damned, giving off blackish smoke and a fearsome red glow that sheds the only light on a world of darkness, terrifying cries, noises and stench, a hell in red and black. Worse still, the damned are forever doomed to suffer cruel torments inflicted by hideous demons. The landscape, when it can be glimpsed, is a horrible scene of steep mountains, deep chasms, stinking rivers and lakes of molten metal, reptiles and monsters. The way into hell is either by being cast down a wellshaft or by taking a bridge over the abyss that becomes narrower and more slippery the further one goes across it. Hell is sometimes divided into different parts that receive different categories of sinners; at other times it is all of a piece but arranged in circles, each specializing in some particular punishment for the damned, or in levels of ever-increasing darkness and burning heat that lead down to the ultimate depth where Satan reigns in person.

Although medieval Christian imagery of the hereafter owes a great deal to that of paganism, it differs from it structurally in one essential way. Heaven and Hell are not next door to each other in the underworld but are placed on a vertical plane, in symbolic accordance with the Christian representation of space, with the heavens above (good) and the infernal regions below (evil).



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Orpheus in the Underworld **(1594), oil on copper by the Flemish painter Jan Bruegel, known as Velvet Bruegel (1568-1625).**

Relations existed in time and space between the quick and the dead, God, Satan and people; in other words the eternal world beyond made its presence felt in earthly life. Angels continually descended to Earth and mounted up into the heavens again, as, more seldom, did the Son of God and the Virgin, while the wicked demons and Satan himself likewise came and went between Earth and Hell. The hereafter played a role in earthly history. Quite apart from the rare voyages of a few favoured individuals to the realms beyond, visions, miracles, signs and portents established what medieval Europe saw as the relationship between this world and the next.

The linchpin of the system, however, was not Heaven, but Hell. To urge Christians to work out their salvation, the Catholic church employed fear of hellfire rather than desire for Heaven. In the face of death, they were less afraid of dying than of Hell, and Christianity thus became, with some slight variations of emphasis, a religion of fear.

The bipolar character of the Christian afterworld continued more or less unchanged until the twelfth century, when major religious and social changes resulted in a new society with a new view not only of this world but also of the next.

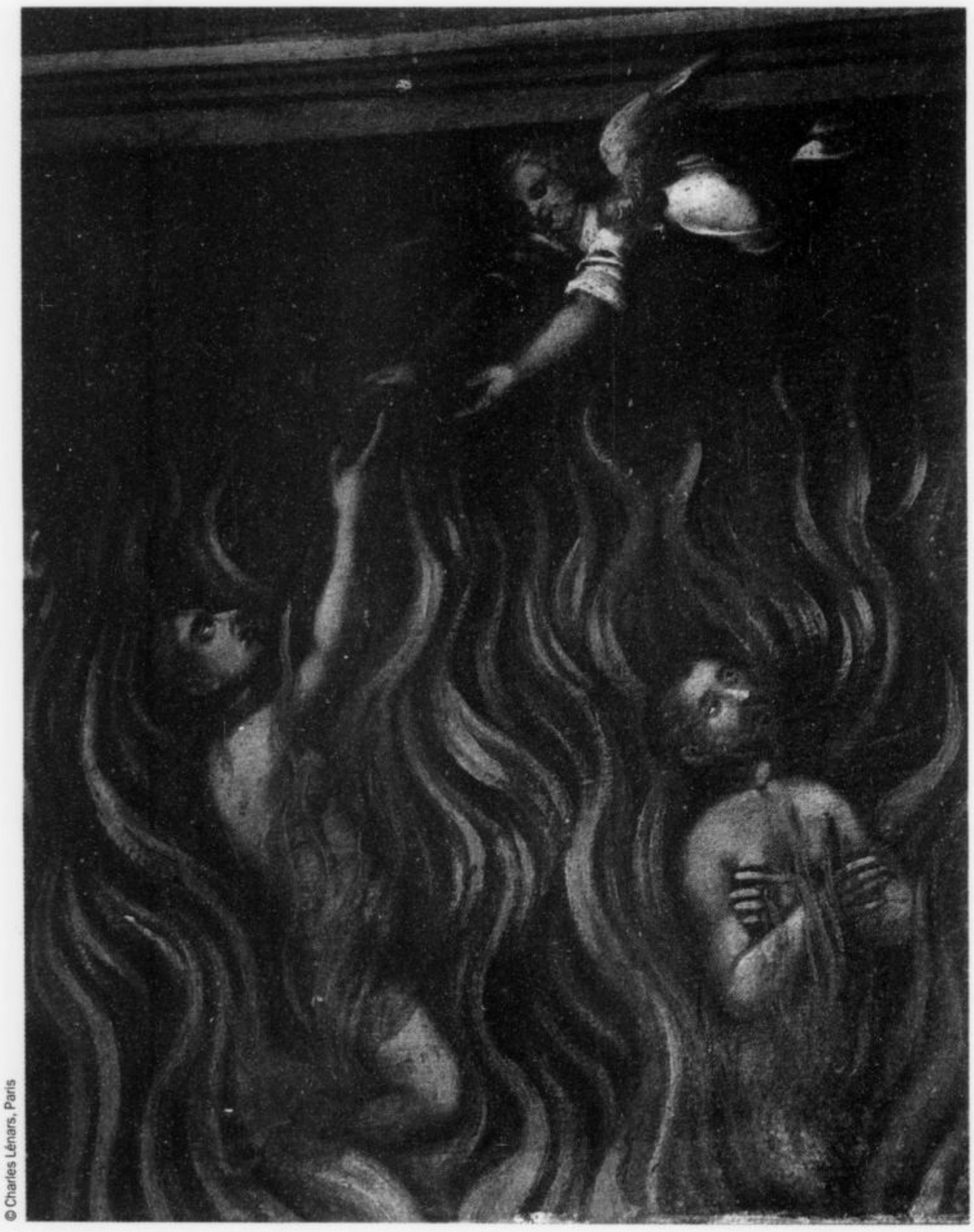
St. Augustine had divided men into four categories: the "entirely good", who were destined for Heaven, the "entirely evil", who were consigned to Hell; and the "not entirely good" and "not entirely evil", the fate ordained by God for these last two categories being somewhat uncertain. It was supposed that those who died with only a "light" burden of sin upon them would rid themselves of it in the afterlife by undergoing "purgatorial penalties", passing through "purgatorial fire" similar to hellfire, in "purgatorial places" whose location remained very vague. In the latter half of the twelfth century, a separate place was invented for those whose admission to the number of the elect had been deferred. This ▸

was Purgatory, the "third place of the world beyond", midway between Heaven and Hell, which would vanish at the Day of Judgment and would be emptied when all its inhabitants rose up into Heaven.

The amount of time spent in Purgatory depended on three factors. It was in the first place proportional to the number of sins (referred to thereafter as "venial", i.e. redeemable and thus allowing the sinner to avoid damnation, as against irredeemable mortal sins) with which the dead were burdened at the time of their death. It depended next on the *suffrages* (prayers, alms and masses) offered by living relatives and friends to reduce the length of time spent by certain "souls" in Purgatory. Lastly, the Church could obtain a remission of the time still to be served in Purgatory, in return for money—the *indulgences* in which the Church carried on a growing trade from the thirteenth century onwards. Purgatory, it should be added, was a one-way street. Souls could only go on from there to Heaven, and not back towards Hell.

This "third place", which reduced the population of Hell and replaced the binary system of the afterworld by a more complex, less rigid system in keeping with the evolution of the "estates" of society on Earth, and which was widely disseminated by the friars of the Mendicant orders established in the early thirteenth century (Dominicans and Franciscans), was of the greatest importance.

In a Purgatory resembling Hell, an angel's hands reach out to a soul which has completed its time of penitence. Detail of a 17th-century mural from the church of Saint Laurent in the Tinée valley, southern France.



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The triumph of death

It brought about the triumph of the idea of individual judgment at the moment of death and, in conjunction with the fact that at least one yearly confession was imposed on all individuals by a decree of the Fourth Lateran Council in 1215, it contributed greatly to the affirmation of the individual in relation to groups and orders. It transformed the social structures and behaviour patterns in the world of the living and resulted in a mathematical attitude to sins and penances that gave rise, at this point in history when trade and the merchant class were developing rapidly, to a kind of book-keeping approach to the afterlife. It also contributed to a great increase in the power of the Church (which in the thirteenth century designated the existence of Purgatory as dogma) over the dead, inasmuch as the suffrages and indulgences of which it was in charge gave it an authority, previously exercised by God alone, to administer justice in the afterworld of Purgatory.

In this period when the new society of the thirteenth century was being put in place on Earth, the geography and system of the afterworld (that of St. Bernard and St. Thomas Aquinas) took definite shape. The basic system was that of the essential "three places"—Hell, Purgatory and Heaven—made up to five by the addition of two limbos: the *limbus patrum,* or limbo of the patriarchs, the former abode of the just who died before Christ's incarnation and the institution of baptism, the place that was to be emptied by Jesus when He descended into Hell to take its inhabitants up into Heaven; and the *limbus infantium,* or children's limbo, the abode of infants dying without baptism.

It was this new arrangement of the afterworld that inspired the great masterpiece of medieval Christian literature, Dante's *Divina Commedia* (early fourteenth century), in which the author, guided by the ancient Roman poet Virgil, visits every part of the afterworld—the circles of the Inferno where the damned are punished severally according to their respective categories of mortal sin, and the terraces of Purgatory, which is presented as a mountain that has to be climbed to attain the beauties and joys of Paradise.

A study of fifteenth-century texts and images raises the question as to whether by the end of the Middle Ages people still believed in Hell. It seems that, despite the best efforts of the Church, such a belief was by that time much watered down. Christians, showing signs of the emergence of a modern sensibility, were now afraid not so much of Hell as of the phase that immediately precedes the afterlife—death itself. ■

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The *Ladder of Virtues*, facsimile of an illustration from a lost medieval illuminated manuscript, the *Hortus Deliciarum* (Garden of Delights).

A materialist vision of the afterlife

BY GREG OXLEY

For Marxists, the hereafter is an instrument of power wielded by the dominant social classes

The story of the hereafter in human thinking is almost as old as humanity itself. The material conditions in which early man strove for survival posed problems to which empirically acquired knowledge, the primitive "science" of the times, could not provide answers. The history of human beings, as distinct from the history of apes of a more or less advanced type, begins with the history of their production of the means of their own existence. The degree of sophistication of the tools and weapons developed by primitive humans, of the "means of production" of the necessities of everyday life, conditioned their mental representation of the world.

To the extent that the laws of nature remained hidden from human understanding, natural phenomena necessarily appeared as being animated by wild, uncontrollable forces which influenced human fate. Imaginary "spirits" inhabited the trees and forests, the rivers and marshes, animated the skies, the rain, the wind, light and darkness, and the animals man hunted. In his own dreams, in his ideas and imagination, man was inclined to see the manifestations of a spirit within himself.

With the emergence of the early civilizations, and with the corresponding increase in human power over the environment, the general trend in human thought, which can be traced in various forms through surviving artistic representations and inscriptions, was to separate the world of gods and spirits from the environment, and to imagine their existence in another world. From their distant abodes, the gods weighed the greatness and virtues of humankind, and rewarded or punished earthly beings.

Each new step in the acquisition of productive techniques led to changes in the relations between humankind and the natural world, and also in the social and economic relations existing between the producers themselves. These changes would in turn shape and transform the fantastic representations of the world in human minds. Once worldly phenomena are understood as the consequence of a natural process, the belief in divine or spiritual influences is weakened and tends to disappear, not immediately, but after a certain delay. "Human consciousness lags behind events", as the materialist philosophers of the nineteenth century explained.

Thus the development of the means of travel and of commercial exchange and the emergence of common language over wider areas, undermined locally-based folklore and gave way to a ▸

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Monks are shown collecting tithes from the people at the time of Pope Innocent II (12th century) in this illustration from a 19th-century French History of the Popes.

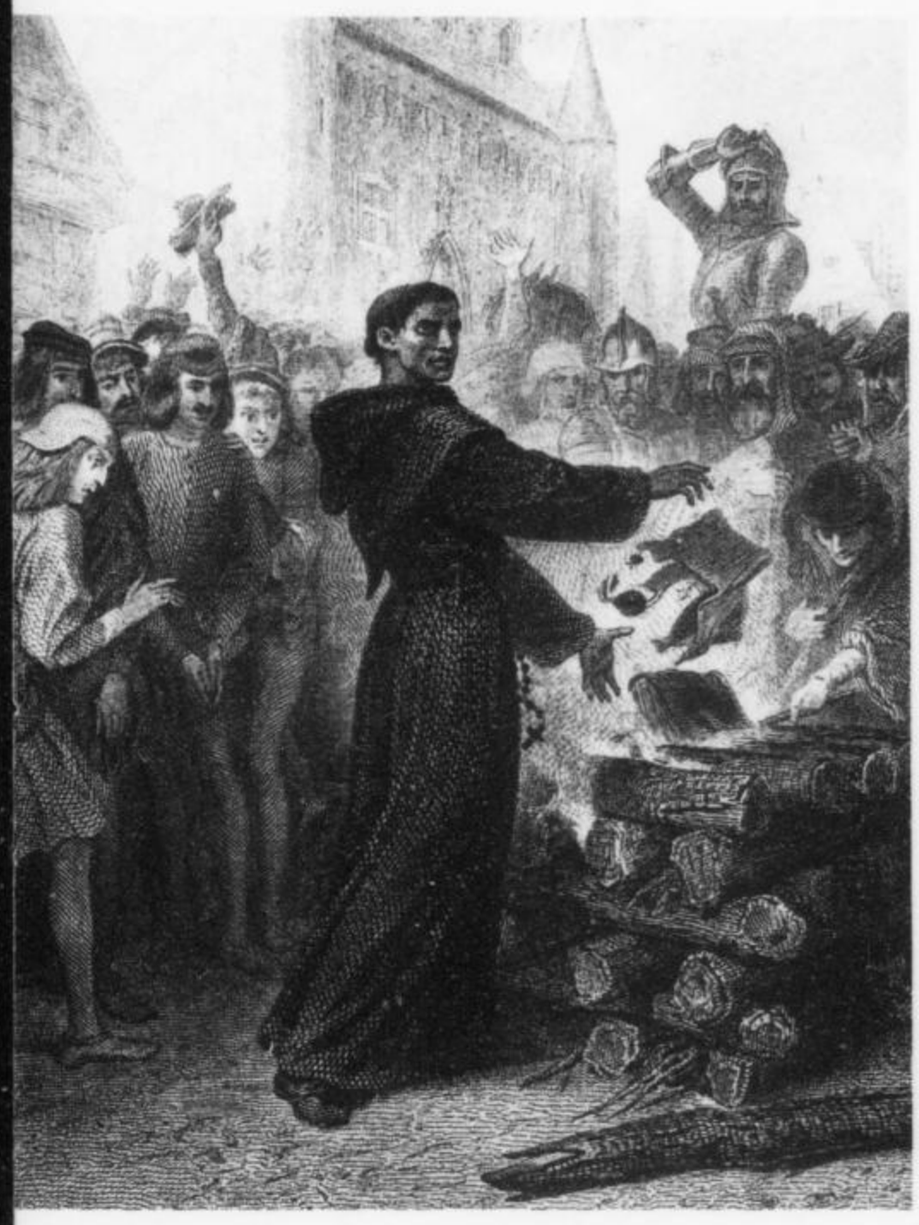
▶ new, more universal, hierarchy of beliefs and attendant rituals. The emergence of monotheism, the belief in a single divinity, reflected the understanding of the world as a "whole", as a single entity whose different component phenomena are related to and in interaction with one another.

Historically, therefore, through many different forms, the basis of the belief in the existence of other worlds was the human attempt to explain the material environment, filling the gap, as it were, left by the still rudimentary level of empirically acquired knowledge.

Ideological pressures

However, this is not the only reason for the rooting of such beliefs in social consciousness. When the level of development of productive technique renders possible the emancipation of a part of society from physical labour, dividing society into different and mutually antagonistic social layers, people's relationship with the world of spirits becomes not only the expression of a given level of cultural development but also an expression of the social relations established between groups and classes. The perception of gods and supernatural powers becomes an element in social conflict. The dominant layers of society create for themselves a heavenly justification for the perpetuation of their rule.

The history of the Christian religion is a clear illustration of this. At each historical stage, Christian ideas about the world reflected not only the general cultural and scientific levels reached by society, but also the ideological and political pressures of the contending social



At Wittenberg, on 10 December 1520, the German religious reformer Martin Luther burns the Papal bull *Exsurge Domine* calling on him to retract his ideas. (19th-century French engraving).

© Selva, Paris

The German reformer Thomas Münzer preaching in the Klettgau region. (19th-century engraving).

© Jean Loup Charmet, Paris

forces of the times. The hierarchy of the Roman Church spent centuries haggling over the origins of the Devil, his role in the world, the extent of his powers, his relation to God.

It would be wrong to see in such seemingly interminable debates only the product of over-excited imaginations. Underlying the need to give a more precise definition to the role of the Devil, for instance, was an essentially political problem. To minimize the powers of Satan would weaken allegiance to the Empire as a safeguard against devilish maledictions. On the other hand, Rome was concerned that the tendency to see the "work of the Devil" behind the most ordinary misfortunes would lead to a greater respect for the Devil than for his divine opponent, whose influence was perhaps less perceptible to poor peasants. Thus the need to give a more restrictive definition of the powers of the Devil on earth.

The ideological conservatism of the Church reflected its position as an integral part of the ruling land-owning classes within feudal society. The imagery of heaven and hell used by the medieval church reflected and idealized the existing social order. God, the king, was pictured as sitting at the head of a pyramid of orders, the lower orders owing deference to the higher, whose place and authority was conferred by God himself. Heaven was depicted as a place of joy, peace, and general well-being.

On the other hand, those who, during their passage on earth, fell foul of God, whose "word" was infallibly interpreted and communicated to them through the laws of the Roman Church, would be condemned to everlasting torture in hell. To this day, the walls of many church buildings are decorated with the most horrifying representations of what hell reserved for those who strayed from religious conformism. The concepts of heaven and hell were inseparable. It can be safely assumed that, in the mind of a medieval peasant, one of the best arguments for doing whatever was necessary to get into heaven was to avoid being sent to hell!

Social unrest and religious beliefs

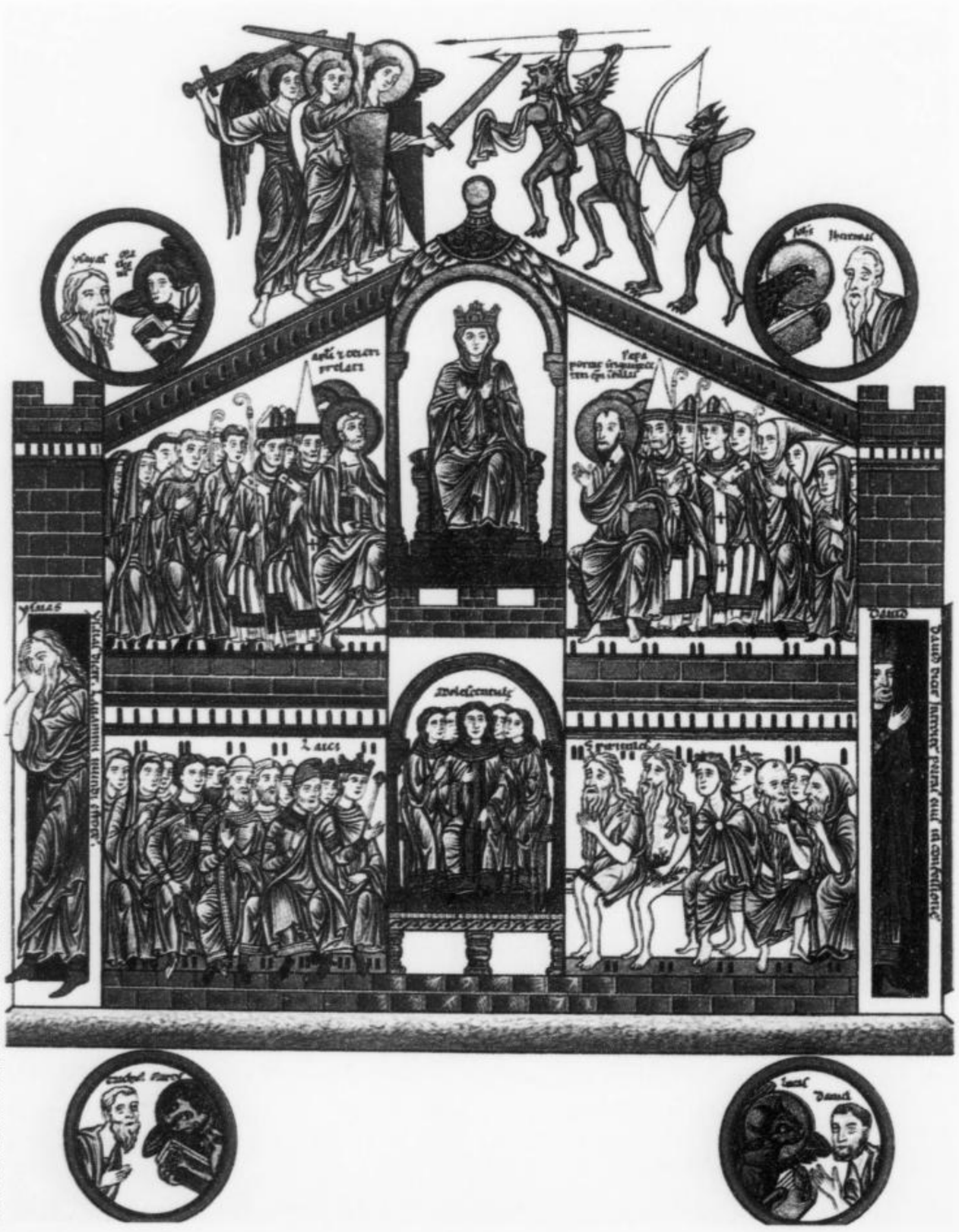
When social antagonisms reach such a point that conflicting interests break out into open struggle and warfare, the interpretation of the "holy word" and the role attributed to the "hereafter" in earthly affairs form part of the ▸

▸ ideological expression given to the needs and interests of the contending forces.

A great many illustrations of this idea could be given, and not, of course, solely in relation to the Christian world. But perhaps one of the most striking examples is to be found in the period of the reformation and of the peasant war in Germany which took place in the first quarter of the sixteenth century. When Martin Luther launched his attack on the clergy of the Roman Church, this was seen as a signal for revolt on the part of all those social strata who sought to free themselves from its domination. The burghers, the lesser nobility and the princes, joined by some elements of the lower clergy, stood to gain from a weakening of the power of Rome and from the confiscation of Church lands and property, much of which had been acquired by means of forced tributes, forged documents, or political blackmail at their expense. The peasantry, which bore the entire feudal hierarchy upon its back, stood to gain most of all from a change in the social order.

Initially, Luther himself adopted a particularly virulent tone in relation to Rome and the ruling layers of society. But with the outbreak of a peasant uprising on a massive scale, he changed his tone in favour of mere "passive" opposition to the Catholic hierarchy. He turned against the "murdering peasant hordes", and called upon the princes to "stab and strangle them". After a bloody civil war, the peasant armies were finally defeated, and their most outstanding representative, Thomas Münzer, was among those put to death.

The *City of God*, facsimile of a medieval miniature from the *Hortus Deliciarum* (Garden of Delights).



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Heaven on earth

For Münzer, the notion of heaven as another place, visited in another life, was a snare for the poor. He brought paradise down to earth. It was to be established here and now by the revolutionary realization of the will of God. Hell was pictured as being no different from the existing social order, ruled as it was by "robbers and murderers".

Münzer's doctrine was a striking example of the translation into religious terms of the social and economic aspirations of a particular social class, namely the poor peasantry of his times. His vision of the Kingdom of God was one of a classless society, where work and rewards for work were to be shared, without private property, or, at any rate, with an equal sharing of property.

The same phenomena occurred during the English revolution which overthrew the Monarchy in 1649. Early protestantism in England, and particularly that preached within the ranks of Cromwell's "New Model Army", was very close to Münzer's doctrine, and was accompanied by a flourishing of movements aiming to establish "heaven on earth", forming communities based on the sharing of property and earnings. Faith in salvation in an afterlife is most prevalent in times of social inertia, and recedes as soon as social forces move into action on a massive scale. Even Cromwell's famous battle-cry shows the entirely subordinate place the "Defender of the Faith" attributed to heaven in earthly affairs: "Trust in God . . . and keep your powder dry!"

The prevailing religious ideas of a given society in a given epoch are established not in a vacuum, not as the result of "pure" reasoning, but in close relation to the societies and modes of existence in which they emerge. The role attributed to the "afterlife" by human beings has a definite function within human society, and is constantly shaped and altered to bring them into conformity with the requirements of the different social groupings and classes within it. In the final analysis, no religious beliefs can stand above the social and economic foundation upon which they rest, nor free themselves from the influence of the material interests of contending social forces in a given epoch. ■

Living to tell the tale

BY PETER FENWICK

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Many people have crossed to the 'other side' and returned with surprisingly similar stories

In the American film *Heaven Can Wait* (1978), Warren Beatty, above, plays a footballer who dies prematurely and is given a second lease of life on earth.

It is likely that for as long as man has been aware of the certainty of death he has contemplated the possibility of survival. There is nothing particularly new about the notion that people can "die" and live to tell the tale. Myths and legends recounting these tales go back well over 2,000 years. But it was not until 1973 when the American psychiatrist Dr. Raymond Moody collected the first contemporary accounts of near death experiences (NDEs) that it was recognized that these were worthy of serious scientific study.*

Studies of the NDE produced some fascinating data, and raised some interesting questions. It is clear that these experiences are not specific to near-death situations—they also occur as a response to extreme stress or terror or pain, in childbirth, under anaesthesia, spontaneously, and possibly also during sleep. Moreover, not everybody who comes near death has an NDE.

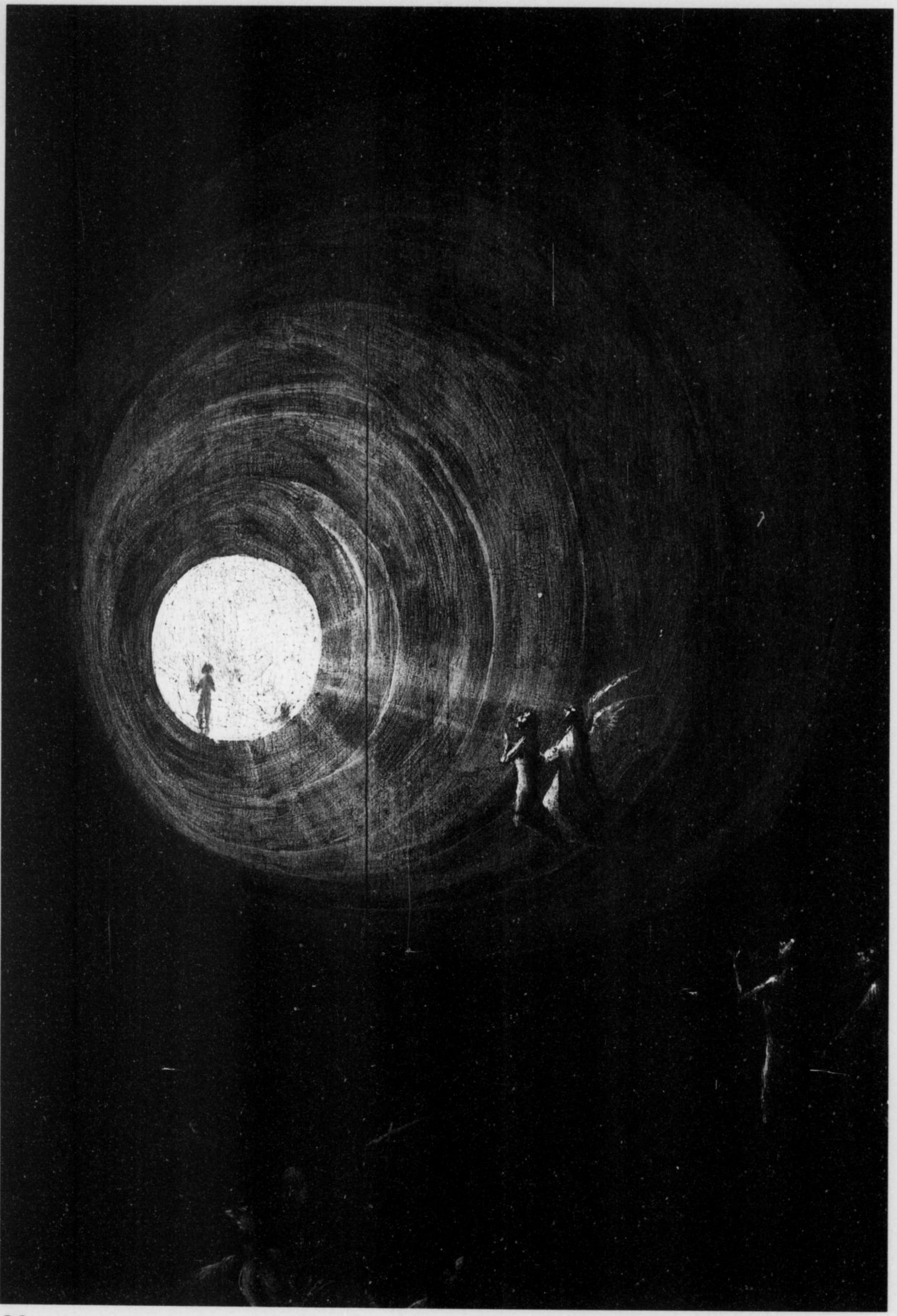
Although cross-cultural studies indicate that NDEs have a strong cultural component, it is unlikely that they are entirely the product of cultural expectations, because there are many accounts of children too young to have such expectations who have had NDEs. If they are dreams or hallucinations, why do so many people dream more or less the same dream, or have more or less the same hallucination?

The other side

No two near death experiences are identical, but there are uncanny similarities between them. In the majority of cases the NDE is a profoundly emotional experience, vividly remembered for years. Dr. Bruce Greyson, a psychiatrist and editor of the American *Journal of Near Death Studies*, has laid out a blueprint of a characteristic experience, although the features do not always occur in the same order, and few people experience every event.

The experience often starts with feelings of peace, joy or bliss, described as more than ▸

* Raymond Moody, *Life after Life*, Bantam Books (38th printing, 1983).



© Giraudon, Paris/Palace of the Doges, Venice

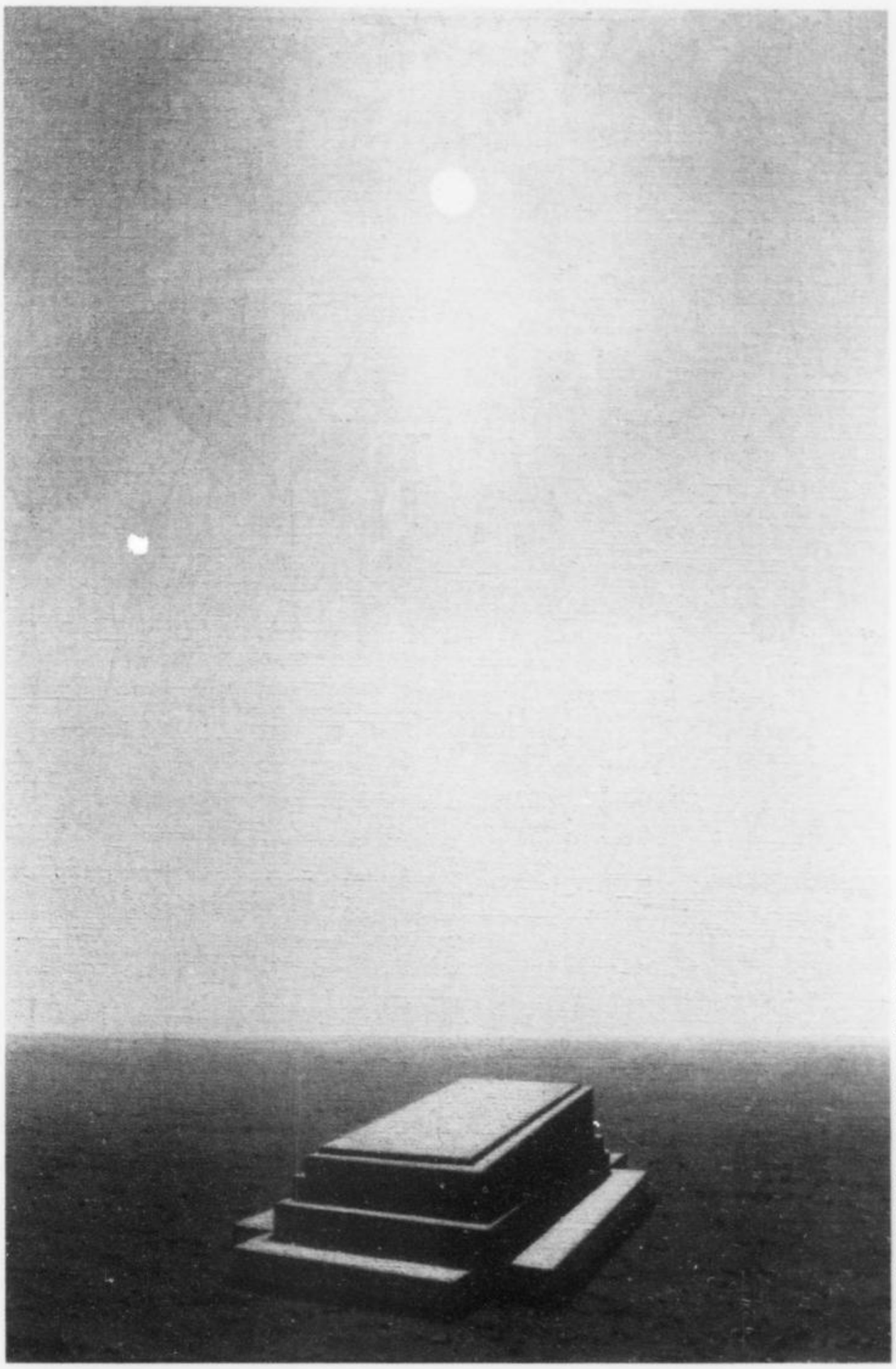
ordinary happiness. If there is bodily pain, it drops away. The out-of-body experience often follows, the person seems to leave his or her body, and can look down on it from some vantage point, usually near the ceiling. They may then enter what is usually described as a dark tunnel, which they pass or float through rapidly without making any physical effort. At the end of the tunnel is a pinpoint of light which grows larger as they approach it.

For many people the light is the most significant part of the experience. It is nearly always described as white or golden, brilliant but in spite of its brightness not dazzling. Often the person feels drawn towards it. Sometimes it manifests itself as a "being" of light, an intensely emotional and positive presence that is warm and welcoming and loving.

At some point people sense a barrier between them and the light, sometimes a physical barrier such as a gate or fence, sometimes simply a feeling that this is a point beyond which they cannot pass. They may glimpse an idyllic pastoral scene beyond the barrier, or see people, usually dead relatives, sometimes beckoning to them, sometimes signalling to them that they should go back.

The feeling that it is not yet their time to go is a very common feature of the experience. Sometimes people will make the decision to go back themselves, usually because they feel their families still need them. Sometimes they are sent back either by the being of light or by the relatives they have met.

More rare is the "life review", a sort of Day of Judgment which some people experience, in which their past actions are reviewed. Some have a life preview, in which they are shown events which are to take place in their future, and told there are tasks ahead of them which they must go back to complete. The return to the body is sudden and rapid, often described as a "snapping" back into their body as if on the end of an elastic cord.


© Photothèque René Magritte/Giraudon/ADAGP Paris, 1988, private collection

The Hereafter **(1938), oil on canvas by the Belgian painter René Magritte.**

Cultural variants

Nearly everyone who has the experience says that through it they lose any fear of death. Often their attitudes change in other ways. Life often seems to have an added purpose and value after such an experience. It may confirm religious belief for those who previously held it and many of those who have no particular religious belief return believing that death is not the end. A few people believe they have been given psychic powers such as precognition or the gift of healing, after the experience.

Opposite page, "The Elect", detail of *Heavenly Paradise*, a panel from *Visions of the Hereafter* (c. 1500-1516) by the Dutch painter Hieronymus Bosch.

The near death experience is intriguing for two major reasons. First it is very common—some studies suggest that between a tenth and a third of people who have had a cardiac arrest had an NDE. This makes a prospective study feasible. Secondly it seems to be a universal human experience and not a culture-bound one, although it is, as might be expected, influenced by the particular culture in which it occurs.

In Indian experiences, for example, the positive feelings of peace and joy which seem to be a significant hallmark of Western experiences are much less often reported. Out of body and tunnel experiences are rare. Instead the subject is taken by "messengers," and as a result of some bureaucratic bungling, usually a case of ▸

▸ mistaken identity, is finally brought or pushed back. Stigmata seem to be a quite common phenomenon of the Indian NDE. In one reported case, for example, fissures were seen in the skin on the front of the knees of a man who had had an NDE in which he reported having been captured by ten people who cut his legs off at the knee to prevent his escape. Relatives or friends do not play a significant part in Indian experiences, while well-known figures in Hindu mythology do.

But even within Western cultures there are differences in the NDE. The life review, for example, is far more often reported in American experiences than British ones, religious figures tend to figure more prominently, and the experiences have an evangelical quality which probably reflects the more fundamentalist religious culture of that society.

The NDE is almost always a positive experience. Glimpses of Hell are rare. Is this because, where life after death is concerned, we are all past-masters at giving ourselves the benefit of the doubt? Or because the stereotypical view of heaven, with pastoral landscapes and figures in flowing robes, is more frequently depicted and more likely to be fixed in memory than archetypal visions of Hell?

It has been suggested that the reason why so few hellish experiences have been described is that they are quickly forgotten. However, it seems more probable that people who have bad experiences are just as strongly affected by them as people who have good ones, but they are much more reluctant to talk about them. But perhaps the most likely explanation is that when an experience includes feelings of peace or joy, as about 80 per cent do, these are paramount and override everything else, so that whatever else occurs is interpreted in this positive light. Many experiences include moments of terror and in the absence of positive emotional feelings these may colour the experience so that it is felt as neutral or even "hellish".

© Monique Pietri, Paris

This statue of Vaishno Devi, a form of female energy or "shakti", stands in the Hindu sanctuary at Kulu, Himashal Pradesh State (India).

The search for an explanation

Is there any scientific explanation for the NDE? Is it nothing more than a hallucination, a trick played by a brain disordered by drugs, pain, lack of oxygen, or sickness? Some experiences are clearly drug induced. Of the other explanations which have been advanced—anoxia, hypercarbia, the release of endorphins during pain or stress—while some of these may be involved in the NDE in some circumstances, none can account for every aspect of the experience or are applicable in every situation in which NDEs occur.

The NDE confounds many of our assumptions about how the brain works, and it is difficult to find a rational scientific explanation for it. Many NDEs occur during unconsciousness, when the brain is theoretically incapable of building the coherent and often complex models which people who have had NDEs report. Moreover, memory does not function in unconsciousness, so even if the brain was able to make such models, they should not be remembered. From the point of view of both memory and model-building, it should be quite impossible to have an NDE when brain

function is seriously compromised or the brain is seriously damaged. And yet there are cases in which this has happened. To explain it we have to postulate that the brain can retain the capacity for making images in unconsciousness and that when the memory circuits are damaged, memory can be retained by some other means.

There is evidence, stretching back to the first brain mapping experiments of Wilder Penfield in the 1930s and 1940s, for the involvement of the temporal lobes. Penfield found that stimulation of the temporal lobes produced sensations of leaving the body, feelings of tranquillity, hallucinations of people. Some people reported having flashes of memory. The right temporal lobe is primarily concerned with emotion, and the NDE is a very emotional experience. Most people say that the NDE is ineffable, impossible to describe or categorize, and this suggests that it may be arising in the right hemisphere, which is concerned more with spatial than verbal functions. The loss of spatial boundaries and deep feelings of unity which are characteristic of the NDE are probably due to an alteration in right hemisphere function.

Perception of time is often altered during an NDE and the misordering of events in time is yet another right-hemisphere function. NDEs always seem to carry the feeling of absolute reality; often they are felt to be more real even than everyday life. This attribution of certainty to ongoing perception is possibly another temporal lobe function. A similar feeling of "knowing" something emotionally is sometimes experienced by people who have a right temporal epileptic focus.

Beyond the frontiers of science

Thus it seems likely that the NDE is mediated by the temporal lobe. But this still leaves two questions unanswered. How does such a coherent integrated experience like the NDE occur during unconsciousness when it is impossible to postulate an organized sequence of events in a disordered brain? And why is it that spontaneous experiences in which it seems highly unlikely that there can be a physical or psychological mechanism at work, also sometimes occur?

One possibility is that the NDE is a form of mystical experience, and the brain structures which mediate it are probably the same structures which mediate any mystical experience. The nineteenth-century Canadian psychiatrist Richard Bucke (1837-1902) was one of the first Western scientists to try to define the characteristics of the mystical experience. The nine features he listed were: feelings of unity, feelings of objectivity and reality; transcendence of space and time; a sense of sacredness, deeply felt positive mood; paradoxicality—the experience is felt to be true even though it violates Aristotelian logic; ineffability; transiency; positive change in attitude or behaviour.

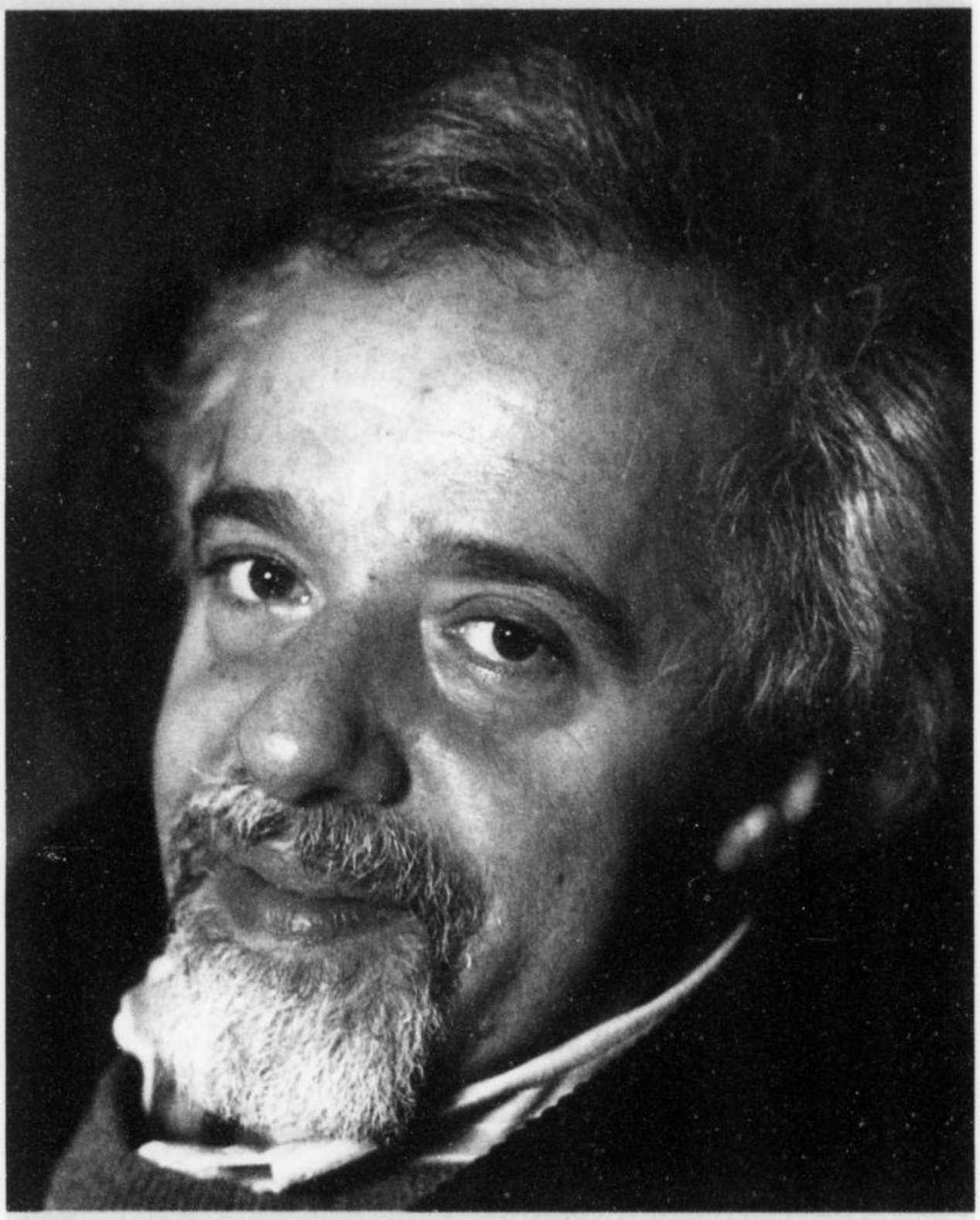
The probability is that the NDE is a mystical experience, timeless and independent of death, but part of the spectrum of normal human experience. If we accept this, it explains why not everybody who is near death has one, and why there is no common cause.

Does the NDE do anything to confirm the continuation of personal consciousness after death? People who have had the experience say that it does. But to accept this we have to step beyond the boundaries of science, which does not accept subjective experience as evidence. Only by trying to establish a new science, which does attempt to explore and to validate human subjective experience can we decide whether there is in fact meaning behind the mechanism of the NDE and perhaps even allow for the continuation of personal consciousness. ■

The world of the hereafter is evoked in two books published (in French) in the UNESCO Collection of Representative Works. One, Gan Bao's *In Search of Spirits (Sou shen ji*; published by Gallimard, Paris, 1992) comes from ancient China; the other, Han Mahlsook's *The Melodious Song of Souls (Arumdaun Yongga*; published by L'Harmattan/UNESCO Publishing, Paris, 1995) is from modern Korea. Although very different in tone, both works are a hymn to life and love in which the dead are closely linked to the everyday experience of the living.

Paulo Coelho

'The beyond is accessible to those who dare'



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Brazilan writer Paulo Coelho has won international acclaim with his prizewinning philosophical tale *The Alchemist*, which has sold more than 10 million copies worldwide. He is also the author of *Diary of a Magus: Lessons in the Art of Self-Discovery*, an account of a pilgrimage he made to Santiago de Compostela, and of *By the River Piedra I Sat Down and Wept*. His most recent book, *Mount Five*, which retraces the life of the prophet Elijah, has just been published. Since 1997, Paulo Coelho has been a special adviser to the Director-General of UNESCO for the "Routes of Faith" project*.
Here he is interviewed by Baghat Elnadi and Adel Rifaat.

* See the *UNESCO Courier*, May 1995, "The Pilgrim's Way", p.16

■ **In the two centuries since the Enlightenment, man has become the measure of all things. This attitude of mind has changed many things for the better, but it gives short shrift to the spiritual dimension of human existence. People today need to rediscover a relationship with transcendence, but only on condition that it is through their own experience and that they freely consent to that experience, which should not be subjected to any religious authority. By putting forward a model for an individual spiritual quest in your novel *The Alchemist*, you put your finger on this overriding concern of people today. Perhaps this is one of the reasons for its tremendous success.**

Paulo Coelho: The Enlightenment did not prevent people from having their irrational side or rule out intuition or enthusiasm. Humanity gradually turned its back on them for other reasons. Yet I am convinced that humanity is now quietly opening its doors again to things which it had rejected and ceased to respect. The most important of these seems to me to be the idea of mystery. This is something that must be understood—not so much the fact that there is a limit to human knowledge as the fact that mystery is part of the human condition. When I fall in love, it is not because the person I love is the best in the world or even the best person for me. Love is beyond reason, and so is spiritual questing. Why do we need spirituality? I do not know. That's part of the mystery. Some people have sought a recipe for the human condition. "You've got to do this," they tell us. "You've got to do that." I don't trust them. But I do trust those who have sufficient humility to respect the mystery surrounding our lives and to acknowledge that there are major reasons that are beyond our understanding. When I wrote *The Alchemist*, I obviously did not know that it was going to be such a success. I only wanted to write about what I firmly believe, which is that everybody needs to live out their personal legend.

■ **This is what's new, that people who feel the need to get down to essentials no longer have to go through a priest, a rabbi or an imam. *The Alchemist* suggests that they can find self-fulfilment by pursuing a personal quest which is a source of fulfilment rather than a curtailment of their freedom. This changes a lot of things.**

P.C.: We all feel an inner need to see the world not only as it appears to our senses but as a vaster intangible reality embracing the Whole. This is what I called the "soul of the world" in *The Alchemist*. Spirituality, which caters for this need, can therefore only be a personal quest. There is a path to God, marked by signs which are so many letters of an alphabet ensuring direct communication with the divine. However, this does not preclude the need at certain times for collective adoration and prayer. At those times, we turn to religion. Religion is there to satisfy a desire to belong to the community, to find brothers and sisters. But it does not show us the path to God. This path starts from within each of us. It is up to us to unravel the thread....

■ **Yet your own personal quest first led you in different directions. At one time you were a hippie and then you flirted with left-wing politics....**

P.C.: Yes. I have tried just about everything. I have wanted to live my life to the hilt. I was raised by the Jesuits, which is the best way of completely losing your faith, because God is forced on you. I left the Catholic church precisely because it had been forced on me. I returned to it later after a pilgrimage to Santiago de Compostela, not because it is the best or ultimate religion but simply because I carry it within me. The world opened up in the 1960s. People, especially young people, started to travel, meet and make contact with each other. It was a magic moment, a moment in the history of humanity when an entire generation set about answering basic questions such as: What am I in this world for? Who am I? Why was I born in Brazil instead of in Egypt? These questions have been pursuing people ever since the dawn of time. They can't be avoided, even if people sometimes feel they have given up on them. In an attempt to answer them, people have explored the three paths of art, science and spirituality. These are three very different things, but they impinge on each other. In fact, the three overlap and blend together. But there are certain things that it is very dangerous to mix up. Spirituality and art can cross-fertilize one another and great scientific geniuses often have poetic intuitions. But when people want to find some kind of scientific basis for religion, the result is catastrophic. The experience of faith belongs to an order of reality that cannot be reduced to the world of concepts or be forced into a scientific mould.

■ **Collective religious experiences are creating many conflicts, instead of prompting people to understand each other better and share things....**

I am convinced that humanity is now quietly opening its doors again to the idea of mystery.

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P.C.: The experience of true faith always brings us back to the Other. This being so, the first person I see is my neighbour. There is a sense of joy which I want to share with him or her. If that joy is not shared, it ceases to be joy. On the other hand, in sadness that is truly shared there is room for joy....

■ **Even misfortunes are opportunities to learn the price of things.**

P.C.: Yes, provided we persevere along the path of our own personal legend, provided that we do not give up. Unfortunately, in the course of their journey, many people betray the dream which connects them to the soul of the world. They sacrifice it to the acquisition of social status. If a person's true vocation is to become a gardener and if by becoming a gardener that person achieves self-fulfilment, nothing should deter him or her. However, in our day, people will be forced more and more often to abandon their dream—often under family pressure—and become lawyers or doctors. They will forget their personal legend, they will lose their sense of belonging, they will no longer have the resources to transform each experience and each misfortune into a fresh opportunity to lift themselves up....

No sooner has the hero of *The Alchemist* decided to follow his dream than he is robbed. You can imagine his disillusionment! He who had found the inner strength to fulfil his personal legend, who thought, as if by right, that the whole world would conspire on his behalf, finds himself alone and penniless. You need courage to launch out into an unknown world, abandoning all you possess. At the threshold of our quest, the fear of stepping into an unknown world and the desire to stay at home lie in wait for us. It is a crucial moment of initiation. But we cannot stand on the threshold for ever. We must dare to move. Only corpses do not move. Life is movement. But where to? This is what we all have to discover for ourselves.

■ **The need to cast off from our moorings....**

P.C.: To do this, we have to give free rein to our rebellious side. I am a great believer in inner rebellion—not lifelong rebellion or rebellion without cause or restraint, but rebellion against the force of habit, against the fear of change—which is really fear of living—rebellion that will enable us to make our own way by strengthening our determination. Take the example of the struggles we have to wage with the family from childhood on. My mother was always opposed to my personal destiny. But at the same time she helped me find ▸

▸ the strength and skills to control myself, persevere and find my own way. Without this conflict, I would never have developed willpower. These are quite legitimate struggles!

I do not know where this rebellion comes from. It is a force which is liberated in us and which liberates us in turn. It is the quest for personal space and time. We cannot accept that our life span should be measured in terms of so many years of primary school, followed by secondary school and then a job. All this is only our collective space-time and it should on no account stifle our personal space-time. It is necessary to strike a balance between the two.

■ **You say that we do not know where we are going, and yet you speak of rebellion. Isn't there a contradiction in this?**

P.C.: Yes there is, fortunately. This is what freedom is all about. There has to be rebellion against the forces of inertia and death in order to liberate the forces of life and creation, which are not programmed in advance. Otherwise, there would be no freedom. By that I mean freedom in its existentialist sense, in other words a compromise. I am free, I can leave this room right now, but I won't because I have freely imposed a certain code of behaviour on myself. I am also free to write a book, but to do so I have to sit at the computer for several hours a day. I impose this constraint on myself in complete freedom. On the other hand, if I am sitting in front of the computer and all the ideas are already in my head, there will be nothing creative about it. We have to leave a space so that inner freedom can express itself.

■ **How did you set about writing *The Alchemist*? What ideas did you start out with? Did you know how the story would develop beforehand?**

P.C.: You may be amazed to learn that the story of *The Alchemist* comes from the *Thousand and One Nights*. It is quite a short tale, only a few lines long, about a hidden treasure for which the hero searches far from home, only to find it eventually within himself. I took four guiding ideas from it: the personal legend, the language of signs, the soul of the world and the need to listen to one's heart. I started the novel with this very short tale as my guide. The rest was vague, like being in a fog. The only thing I knew was that the boy would eventually return to his starting point. There were times—and this is the experience of creation—when I felt as if I was trapped by my own story. At one point, the boy has to transform himself into the wind. It is a matter of life or death. He has to do it. But how do you

Alchemist seeking the philosopher's stone (1848), oil on canvas by the French painter Jean Vetter.

© Giraudon, Paris/Angers Museum

start describing such a thing? As you can imagine, I myself have never transformed myself into a wind. I panicked. . . . Then I told myself that I had to take the plunge and I went right on to the end of the book.

■ **Hemingway used to say that when he started a novel he had no guiding theme, but that when he stopped writing in the evening, he knew what he was going to write on the following day. . . .**

P.C.: In my youth, when I came across quotations like that, I used to say to myself that they were hooey. Now I know they make sense. The wellsprings of creation bubble up in ways that are to some extent unpredictable. In Hemingway's case, the limits of the predictable were on the following day. The day after that was always a blank page. Writers are like pregnant women. They have made love with life and have a child without knowing who the father is.

In my own case, I don't write all the time. I let two years go by between one novel and the next. Things happen during those two years which, together with many others that happened long before, beget a novel in me, like begetting a child. Everything we say today may find its way into some future book.

■ **Frédéric Rossif, the well-known film director who died some years ago, once met a Sufi mystic in a cave in Iran and asked him: "What is a saint?" The holy man's answer struck everybody to whom Rossif told the story. It was: "A saint is a man who has pardoned God".**

P.C.: That was a brilliant answer. It strikes a particular chord with me since my book *Mount Five* starts out from the idea that we should struggle with God. According to the Bible, God should be accepted as a father. Personally, as I said earlier when talking about my mother, I am rather more inclined to wrestle with Him. It is a legitimate struggle. Pardoning God implies that one has already fought with him, as a way of gradually coming closer to Him.

■ **By raising all these questions, *The Alchemist* has gone well beyond the realm of literature.**

P.C.: The novel has inspired a classical symphony, composed in the United States, which will be played at Tarifa in Spain next June. This concert will also be an occasion for an international debate to be held on religions and on ways and means of defusing the religious wars that are threatening us. It is in this capacity, in fact, that I have been appointed an adviser to the Director-General of UNESCO. ■

commentary

Federico Mayor

Africa and the world

The international community formed by the 186 Member States of UNESCO, conscious as it is of what Africa has to offer yet worried about the difficulties it is experiencing, has made the continent one of the priority targets of its action. As a follow-up to this decision, I convened a meeting entitled "Audience Africa" at UNESCO's Paris Headquarters in 1995. The primary aim for all of us was to "tune in" to the continent, to give its countries an opportunity to express their needs and priorities and, perhaps for the first time, to set forth their own approach to the solutions that could be applied by Africans themselves.

The fact is that it is for Africans to determine and map out the paths their future will take, even when they resort to external assistance. I have recently set up in UNESCO an International Fund for the Scientific and Technical Development of Africa because I know that no country today can claim to enjoy effective autonomy without endogenous scientific and technical capacities. However, decisions in this field are political. The African countries must make sure that at least 3 per cent of the resources managed by the United Nations Development Programme (UNDP) are earmarked for scientific and technical development and it is clearly up to these countries to invest a reasonable proportion of their gross domestic product in science and technology.

It would be sufficient for them—and I am referring here to UNDP's Human Development Report—to redeploy 4 per cent of their military expenditure in order to reduce adult illiteracy by half, generalize primary education and give women a standard of education equivalent to that of men. Unfortunately, I am only too well aware that when the possibility of reducing arms expenditure is raised with African leaders, many of them reply that others should be the first to set an example! I also gather that a similar response is made by the countries which sell them arms and which are obviously in competition with one another.

That being said, the very great majority of African countries are just as aware of their difficulties as they are of their responsibilities. Whenever they have the opportunity to express themselves in a multilateral framework—at follow-up meetings to Audience Africa or at meetings concerning the United Nations New Agenda for the Development of Africa in the 1990s or the United Nations System-wide Special Initiative on Africa—the African countries clearly state their wishes and plans: they mean to become partners in progress. For that purpose, in addition to significant debt relief, they demand an improvement in the world climate—in so many words, markets that are more open to their goods.

The entire international community realizes that if Africa takes off economically, the rest of the world will derive considerable benefit because the integration of the African economies into the international system will be less fragmentary. The African countries are also stepping up their determination to pursue the struggle against poverty for the sake of social development and the democratization of political systems.

The right to peace

Peace, development and democracy are three interdependent concepts working in synergy with each other. They are the three apexes of an interactive triangle which we are endeavouring to create in co-operation with our sister institutions of the United Nations system by supporting the efforts made by the authorities of the African countries. It is only in a democratic framework preserving plurality, diversity and difference in accordance with rules accepted by everybody that individuals can fulfil their potential and society can move forward. This democratic framework alone meets the conditions for development and allows the full exercise of the human rights set out in the Universal Declaration, that landmark instrument whose fiftieth anniversary we are celebrating this year.

However, just as development and the spread of democracy are bound up with the existence of civil peace, these human rights cannot be respected in the absence of one essential right, and that is the right to peace for which so many men and women are clamouring in countries stricken by conflict. This is so powerful an aspiration that it can no longer be ignored.

I accordingly took the initiative of drawing up a draft Declaration on the Human Right to Peace, the ideas behind which were approved by UNESCO's most recent General Conference held in the autumn of 1997. This idea of the right to peace is gaining ground and I hope that it will win widespread recognition on the occasion of the celebration of the fiftieth anniversary of the Universal Declaration of Human Rights.

In addition to recognition of this right, since 1989 I have been endeavouring to focus UNESCO's activities on the establishment and promotion of a culture of peace worldwide. This concept, which was difficult to narrow down at the outset, has made considerable progress: it has been recognized by the General Assembly of the United Nations, has become part of the vocabulary used by politicians, the military and teachers, and serves as a common denominator for all kinds of practical initiatives in a wide variety of fields, including basic education, environmental protection, preservation of the heritage and the struggle for press freedom.

Through projects which are jointly accepted and undertaken and which focus on values such as solidarity and tolerance, the community is regaining confidence in itself and in the future.

In Africa, there have been countless activities coming under this heading. The Peace Week held in Mali from 24 to 28 March 1997 and the International Conference on the Culture of Peace and Good Governance held in Mozambique from 1 to 4 September 1997 are among the events at which a number of leaders voiced their commitment to peace, widespread dialogue and the peaceful settlement of disputes.

A delicate fabric woven thread by thread

In north-western Mozambique, a country which still displays the gaping wounds caused by thirty years of war as a result of colonization, the liberation struggle and civil war, there is a small town called Chiputo. Half of its 15,000 inhabitants, mostly farmers, fled to other regions of the country or else to Zambia, Malawi or Zimbabwe. In exile, some of them were given training and emergency assistance, while others were given nothing, and even lost everything they had. With the end of the conflict, they are all returning home, but their resettlement is not without its upsets. UNESCO has undertaken to help these communities achieve successful integration and learn afresh how to live together.

What is above all necessary is to get them to focus on a common purpose, so that the diversity of individual situations will become a source of collective enrichment rather than division. In Chiputo, two teachers provide instruction for 650 children in a primary school; the people who will supervise the future adult literacy campaign have already been trained; a sports ground, a community development centre and a secondary school are under construction; and a community radio, with a range of six kilometres, is planned. It is true that these activities are on a fairly modest scale, owing to the limited resources available, but they are helping to piece together a social fabric that was in tatters. Through projects which are jointly accepted and undertaken and which focus on values such as solidarity and tolerance, the community is regaining confidence in itself and in the future.

In Bujumbura, the capital of Burundi, a UNESCO House for a Culture of Peace has been in existence for the past three years. It is a simple building, with a large number of windows, in which five people are hard at work. It might be thought to be a rather insignificant venture, considering the scale of the recent tragedy and of the task of reconstruction. Slowly but surely, however, it is making headway. Its activities are primarily addressed to young people who are, sometimes in spite of themselves, a prey to ethnic hatred. It is urgent to give them scope for dialogue. In 1996 and 1997, two festivals for peace brought together Hutu, Tutsi and Twa children, who realized, rather hesitantly, that living together is possible when they can take pleasure in a shared project and festive happening.

In the very few secondary schools which, have been immune from the "balkanization" of the country, the pupils bring the violence surrounding them into the classroom. Then, from time to time, a team from UNESCO arrives, brings the children together and calls on them to speak about the acts of violence they have suffered and the violence they themselves have inflicted—and to try to understand its causes.

In Burundi, however, where the conflict has been responsible for a 7 per cent drop in secondary enrolments, it is necessary to go beyond the confines of the school and reach out to those young people who have not had any schooling. This is what we are attempting to do by organizing reconstruction training seminars for them, for example.

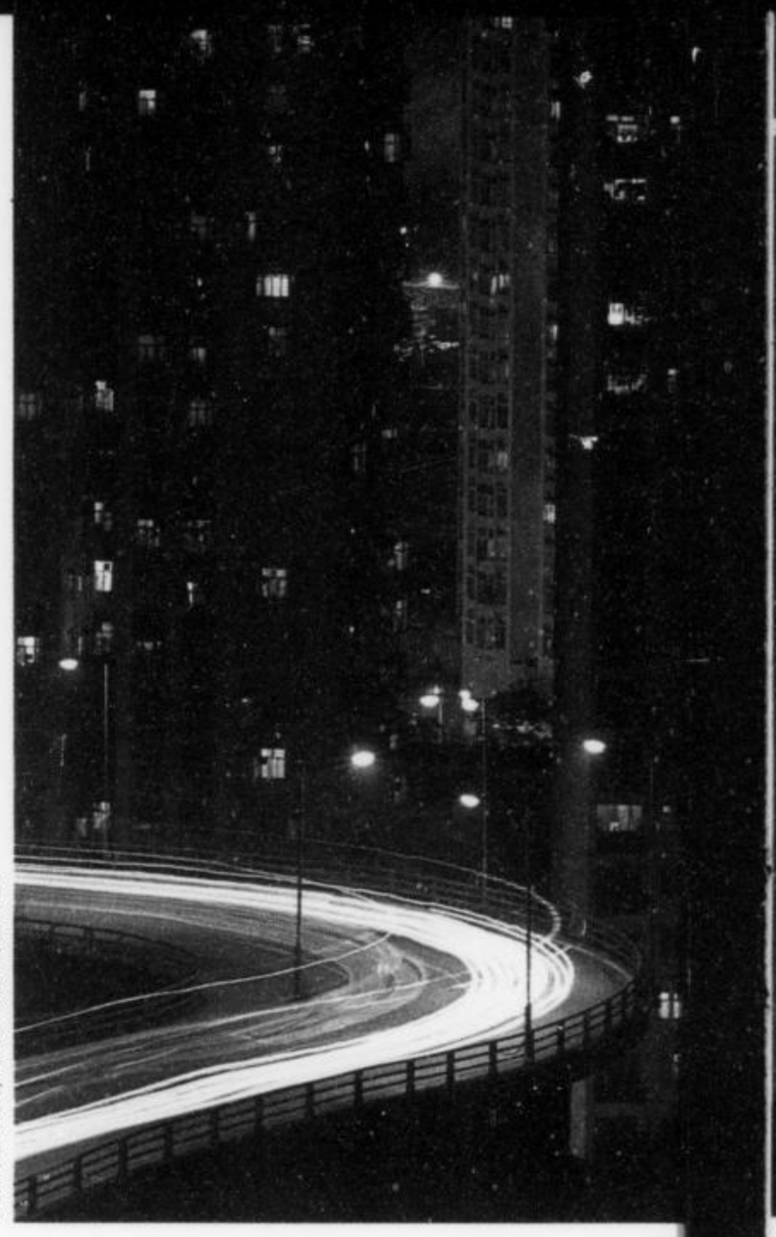
It is very difficult to evaluate the impact of all these initiatives, which are like a delicate fabric woven thread by thread. Less violence was observed in schools in Burundi in 1997, but it is difficult to say to what extent we have contributed to this. In view of this uncertainty, of the inadequate resources, of the political fluctuations and the demands of the moment, we press on, in the modest yet deep-seated conviction that it is through education, and education alone, that it is possible to foster, develop and enhance the chances of dialogue, for as UNESCO's Constitution so aptly puts it "since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed".

The fact remains that time is not the same everywhere. "World time" only exists on computer screens. "Real time" could well turn out to be something different from what it means in laboratories and cybercafés. Perhaps time is what was inscribed centuries ago on a sundial in Bavaria: "Time hurries, time tarries, time divides, time heals". All these contradictory properties are characteristic of time in Africa, time that is both pitiless and generous, heart-breaking and creative. This being so, we need to know both how to overtake time—in cases where it is that of division and hatred—and how to trust time when it is that of dialogue and rejoicing. ■

Greenwatch

Healthy housing

BY FRANCE BEQUETTE



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Although indoor pollution is often overlooked, it directly or indirectly affects the health of a broad spectrum of people, from those living in mud huts to those whose homes are in modern skyscrapers. This pollution can come from three different sources: outdoor air pollution (whose planetary impact was described in our December 1997 issue); building materials; and the activities of occupants.

A healthy home must be designed to protect its inhabitants from extremes of cold and heat, rain, noise, dust, insects, and rodents. It must be constructed on a well-drained site, and have access to running water and a waste-disposal system. Overcrowding should be avoided to reduce the risk of contagious diseases. Neither the heating system nor the cooking facilities should give off noxious fumes. Unfortunately, not everyone living in the Third World or in industrialized countries lives in these conditions. The very poor have to make do with insalubrious shelters on the edges of cities and endure a range of different kinds of pollution.

Another situation that is often overlooked, although it is very common, is that where the home is also a workplace. In such cases, the use and storage of toxic or dangerous chemical substances needs to be reviewed in order to make sure that people are better protected. In addition, the stress caused by the cost of housing, insecurity of tenure, and the threat of expulsion when a home is being illegally occupied, can have an important bearing on mental health.

A POLLUTED ENVIRONMENT

In industrialized countries where current standards are well respected, these risks are generally very low. Architects are closely concerned with the structure of buildings and with the quality of building materials. The World Health Organization (WHO) nevertheless observes that in these countries, "the advent of air conditioning and energy conservation measures have been accompanied by growing problems of indoor air quality. . . . Some pollutants arise from insulation products, some from kerosene heaters, and others from modern housing materials. As many Europeans spend up to 90% of their lives in buildings, the health effects of the indoor climate are significant."

Some construction materials, including fibreboard, insulation foams and certain glues (for carpets or rugs, for example), emit organic products such as formaldehyde. Heat and humidity increase formaldehyde emissions and the gas seriously irritates the eyes. Paint, lacquer, varnish and other resins can also release volatile organic compounds into indoor air.

In 1976, members of the American Legion, an organization of U.S. war veterans, met in an air-conditioned hotel in Philadelphia. More than 200 of them came down with pneumonia and 34 of them died. Later, the bacteria that caused their deaths was identified and named *Legionella pneumophyla*. These

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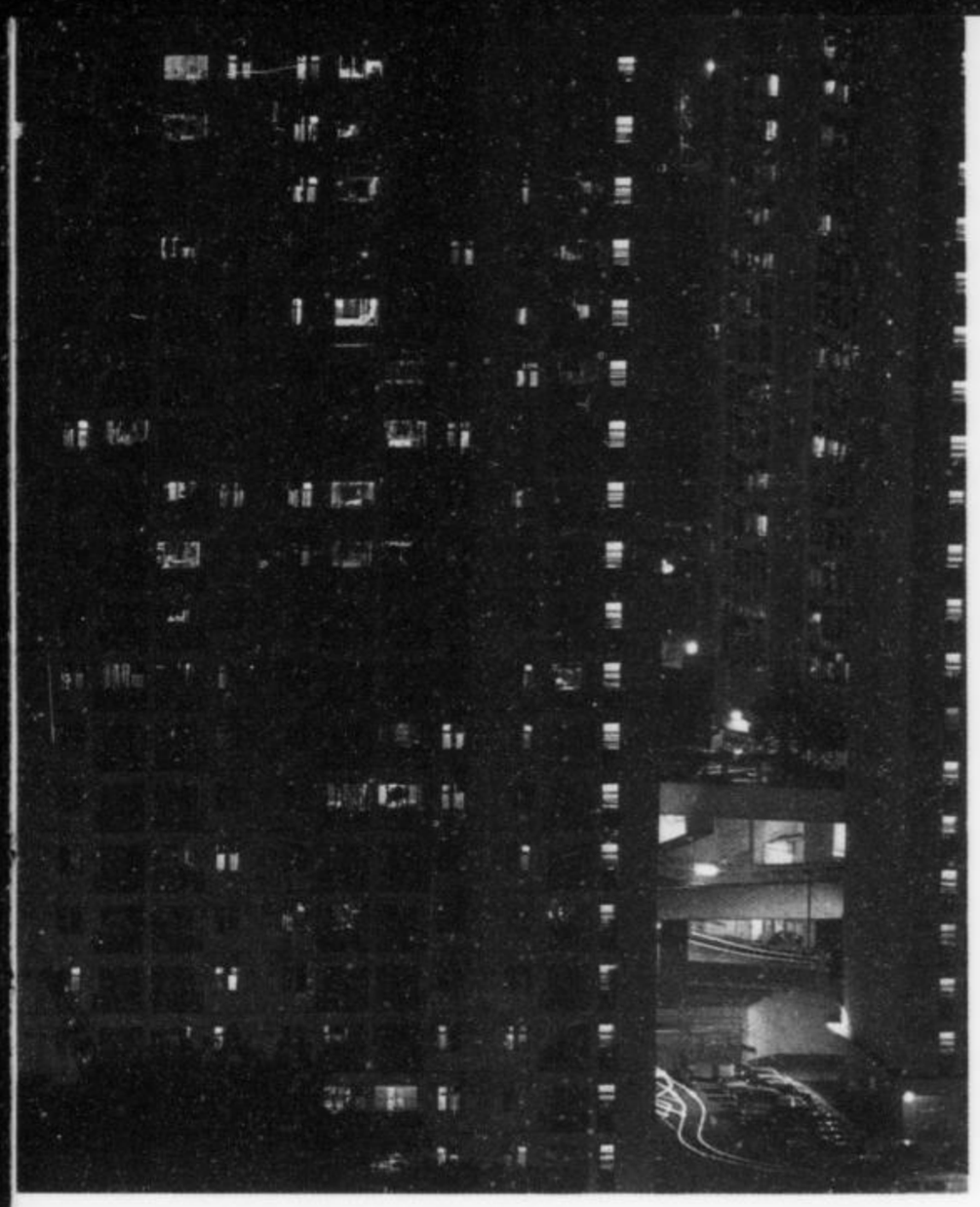
Children's drawing of the *favela* (shanty town) of Vioigal, Rio de Janeiro (Brazil).



Public housing in Hong Kong (People's Republic of China).

bacteria proliferate in humid areas, in toilets, and poorly maintained bathrooms. Steps can be taken to prevent what became known as Legionnaire's Disease by means of simple hygiene measures, starting with very careful, regular cleaning of sanitary appliances.

The land on which buildings are sited may also contribute to pollution. Some kinds of granite or similar rocks contain traces of radium. As it breaks down, this naturally radioactive element produces radon, a radioactive gas that seeps through tiny cracks in walls, porous floors and building materials, and makes its way into home interiors. The better the homes are insulated, the more the gas accumulates. Radon's main affect on health is to increase the risk of lung cancer. Ten years ago in the United States, radon panic made radon detection all the rage. People bought themselves detectors similar to those used by nuclear technicians, even in areas where there was no danger whatsoever!

THE RAVAGES OF ASBESTOS

Construction materials can cause serious damage, especially when they contain asbestos. Asbestos is naturally present in rock formations worldwide. It belongs to a family of mineral substances composed of solid, non-combustible fibres. These properties make asbestos a highly sought-after construction material. Its production and commercial use began in the Western world at the turn of the century and became very widespread after World War II. As early as 1931, however, public health officers in the United Kingdom revealed the connection between inhaling asbestos dust and respiratory diseases (asbestosis, lung cancer).

Asbestos workers were the first to be affected. Professor Bignon, a French lung specialist, claims that no epidemiological study has so far proven incontrovertibly that there is a link between lung cancer and exposure to rooms where asbestos has been used. Nevertheless, precautionary measures should be taken to eliminate asbestos as quickly as possible from buildings (as has been done at UNESCO Headquarters in Paris), and especially from rooms used by children.

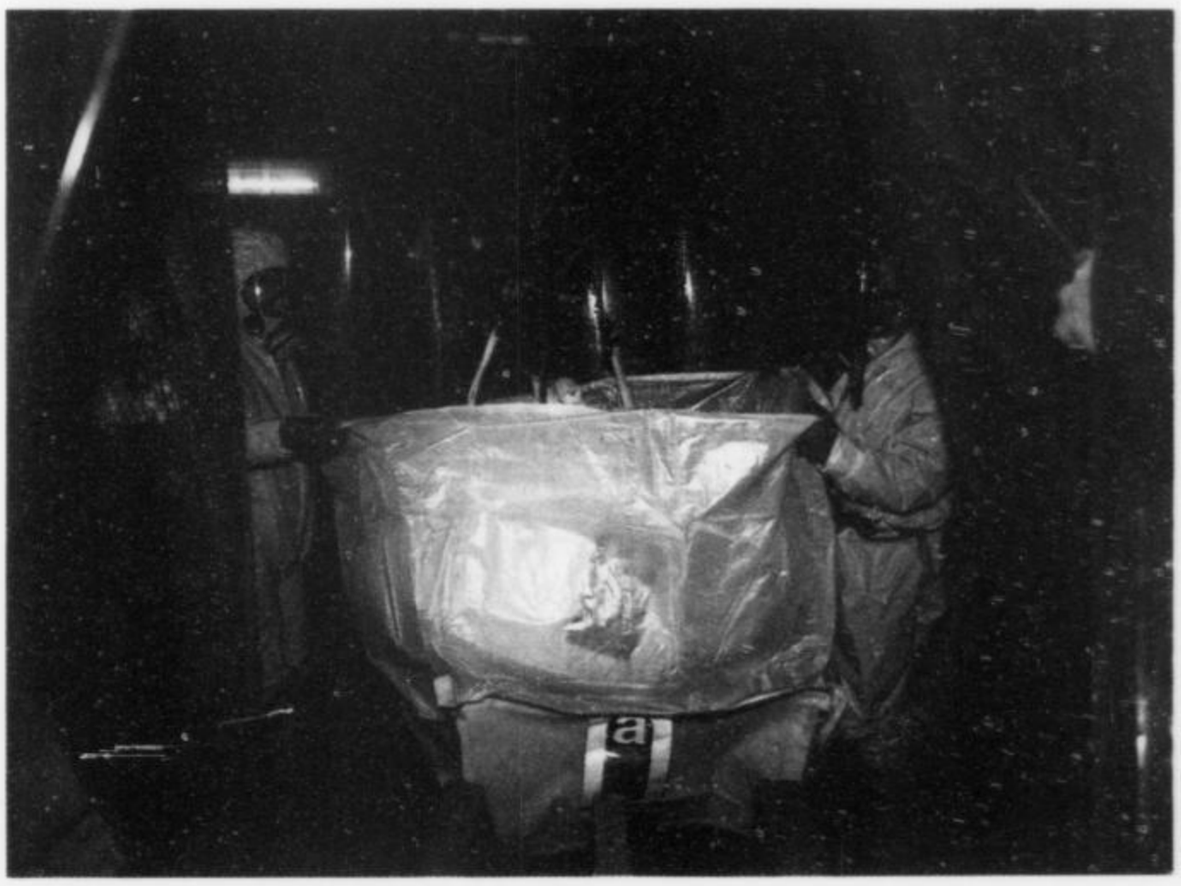
New Caledonia offers an interesting case in point. The island's inhabitants suffer from a very high incidence of pleural cancer, a rare form of asbestos-related cancer that affects the moist membrane lining the chest cavity and surrounding the lungs. This cancer seems unrelated to any industrial activity, however. The French National Institute for Health and Medical Research (INSERM) carried out an investigation which determined that a white plaster coating, called *pö*, used by the Kanak tribes to protect the walls of their homes, was toxic. The plaster is produced locally from a crumbly rock that turned out to be a form of asbestos. *Pö* was very widely used from the 1930s onwards when the colonial authorities encouraged indigenous Caledonians to replace their traditional branch and leaf huts with mud-walled houses on the grounds that these were more hygienic. The affected dwellings must be identified and a new technique developed to eliminate the asbestos from the mud walls.

PARASITES, LEAD AND SMOKE

In Latin America, from the south of the United States to Tierra del ▸

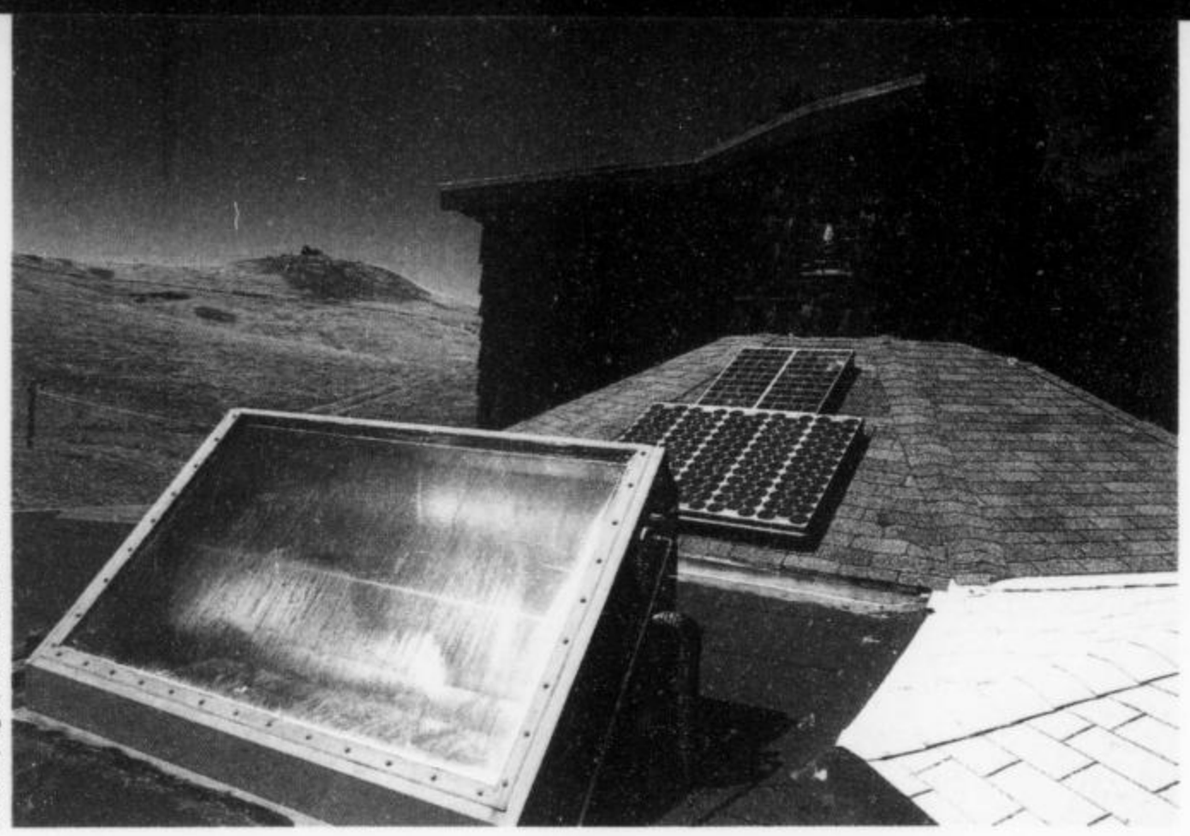
Taking a last look before being expelled from a squat in the London suburb of Peckham.

© Mark McEvoy/Panos Pictures, London



Removing asbestos from the Headquarters building of the European Commission in Brussels (Belgium).

© Béatrice Petit, Brussels



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Solar panels on the roof of a private house (United States)

▶ Fuego, Chagas' disease, also known as sleeping sickness or American trypanosomiasis, affects 18 million people and threatens 100 million more. First described at the turn of the century in Brazil by Carlos Chagas, this parasitic disease is transmitted to humans by a trypanosome carried by blood-sucking bugs of the *Reduviidae* family. In Brazil it is responsible for one in every ten deaths among 25- to 64-year-olds. The larvae live in the crevices of walls and in the dust of poor rural dwellings, and they thrive particularly well in warm, moist areas. Plastering the walls and regularly spraying them with insecticide would solve the problem, but this solution is too expensive.

Lead poisoning is another illness linked to the age and decrepitude of housing. Paint in old buildings contains a great deal of lead. Children swallow some of this when they break off bits of peeling paint and put them in their mouths. This type of poisoning also affects people who drink water which has remained in lead piping for some length of time. Children with lead poisoning have behaviour problems and perform poorly in school.

The gas and smoke given off by fuels used in homes can also prove dangerous. When coal burns in an open or poorly designed fireplace or in badly ventilated rooms, it gives off dense toxic fumes, particularly of sulphur dioxide. In cold regions such as the Himalayas, the highlands of Papua New Guinea and certain Chinese provinces, families are exposed to smoke from open hearths. Heating stoves can also produce indoor pollution. Oil-fired stoves give off nitrogen oxide and carbon monoxide. Biomass fuels, such as wood, animal dung and agricultural waste produce hundreds of highly carcinogenic chemical compounds. This problem can only be solved by using efficient smoke-extraction methods and providing adequate ventilation. ■

HELPING COMMUNITIES TO HELP THEMSELVES

Improving household living and health conditions is the goal of Health in Housing (HIH), a U.S. research centre that works with the World Health Organization (WHO) and the Pan-American Health Organization. Auxiliary centres are located in universities worldwide and courses are given by doctors, nurses, architects, health workers, engineers and other professionals working in this field. HIH does not impose solutions but tries to encourage communities to be actively involved, and to work out what they want and can do to improve their living conditions.

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initiatives

MEDICINE FROM GARDENS

A French ethnopharmacologist, Dr. Jean-Pierre Nicolas, has recently set up an association called Jardins du Monde ("Gardens of the World"), which seeks to develop traditional pharmacopeias and promote the use of medicinal plants in southern hemisphere countries where most people have no access to basic medicines.

In the Quiche department of Guatemala, for example, Dr. Nicolas has contacted a number of Indian populations—the K'iche, Ixil, Kekchi and Mam—and has worked with several French non-governmental organizations including Médecins sans Frontières, Médecins du Monde and Vétérinaires sans Frontières, as well as various diocesan organizations.

Dr. Nicolas started out by conducting field investigations, discussing traditional know-how with local practitioners including Mayan priests, midwives, healers, bone setters, elders and mothers. He then had to make an inventory of available natural and cultural resources, and work out a strategy with the local populations for combating disease. To encourage the traditional uses of plants, he set up medicinal gardens planted with local scientifically recognized, non-toxic species that are effective, available and well known. A team of health workers maintains and develops these gardens that are both nurseries and training schools. Mothers help with the gardening and are given plants and seeds that enable them to have their remedies on hand.

As Jean-Pierre Nicolas points out, "a wound immediately treated with *Aloe vera* gel does not get infected, ambrosia helps reduce worm infestations, and Indian carnations calm diarrhoea." The success of this initiative has led to a flow of requests for the creation of medicinal gardens, including from other countries. There are a growing number of similar projects in Honduras, Nicaragua, Colombia and the countries of the Caribbean.

The same respect for local populations and their traditional knowledge can be found among the 250 members of the French Ethnopharmacology Society, spread over 30 countries, particularly in Africa, Latin America and the Caribbean.

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CURITIBA: A MIRACLE OF URBAN PLANNING

Curitiba, the capital of the southern Brazilian State of Parana, has 1.6 million inhabitants and the cleanest atmosphere of all the cities in Brazil, partly due to a master plan for urban planning which was drawn up in 1964. The city's development has been organized around a number of 3-lane traffic axes, the central lane of which is reserved for a 500-kilometre network used by a growing number of increasingly efficient low-cost buses accessible to the disabled. Nearly 70% of the population takes public transportation every day, as a result of which fuel consumption is 30% lower than in other Brazilian cities of comparable size. Old buses are used as classrooms, clinics and libraries. ■

MINKE WHALES UNDER SIEGE

Between May and June 1997, in defiance of the moratorium on whaling decided in 1993 by the International Whaling Commission, Norwegian whalers harpooned 503 minke whales, an increase of 100% over the previous year. Including Japan's 440 captures made for "scientific reasons" in the Antarctic sanctuary and its 100 captures made in the North Pacific, 1,000 minke whales are now being killed annually. ■

TOGO'S LOST SOIL

Of Togo's 4.2 million inhabitants, 90% make their living from agriculture. Subsistence crops account for 85% of the agricultural sector. Soil resources are therefore extremely important. However, a study made by the French Institute of Scientific Research for Co-operative Development (ORSTOM) has shown that soil is deteriorating

© Paul Smith/Panos Pictures, London

owing to a set of factors including reduction in the length of time when fields lie fallow, deforestation, uncontrolled brush fires, overgrazing, and industrial activities. If forecasts are correct and the population triples before the year 2035, each inhabitant will have no more than one quarter of an hectare to provide subsistence (the world average is close to two hectares). If soil degradation continues unchecked, $10 million will be needed to restore the 90,000 hectares of seriously affected land. ■

PAKISTAN'S MANGROVES: REPLANTING HOMES FOR SHRIMP

Mangrove trees afford protection against erosion and provide shelter for many kinds of animals, especially certain species of edible crustaceans. The destruction of these aquatic forests threatens the shrimp and crab populations that reproduce in them. To combat this trend, the World Wide Fund for Nature (WWF) has launched a reforestation project in Sonmiani Bay on the western coast of Pakistan, where villagers use mangrove wood to build their homes and for cooking. While the project initially met with considerable scepticism, local people eventually agreed to build nurseries on more than 2.5 hectares, where 60,000 saplings are already growing. With the help of explanations about the project given by the village schoolteachers, children have come to understand that "planting a mangrove means harvesting shrimp." They now spend their free time working on the project. ■

MANAGING DROUGHT

The warm Pacific Ocean current known as El Niño contributes to global climatic changes, and particularly to drought. Without effective water resources management, drought is an extremely costly proposition. In California drought resulted in losses of up to $710 billion between 1987 and 1992, and drought crises in Africa and elsewhere have prompted the World Bank to examine the possibilities of long-term strategic planning to tackle the problem. During the 1991-92 drought in Zimbabwe, the stock market declined by 62% and GDP by 11%. During the same drought in South Africa, agricultural production fell significantly. In order to improve drought management, rational water allocation policies must be designed and investments made in community groundwater gardens, conveyance and storage facilities, and irrigation structures. ■

OECD ON THE ENVIRONMENT

The Organisation for Economic Co-operation and Development (OECD) has recently published the 1997 edition of its bilingual (French-English) Environmental Data Compendium. Statistical data compiled from OECD Member countries link pollution and natural resources with energy, transportation, industry and agriculture. One piece of information to be gleaned from the Compendium, which addresses air, inland waterways, soil, forests, wildlife, and waste, is that more than 20,000 species of mushrooms have been identified in the United Kingdom compared with only 300 in Iceland! ■

SENEGAL'S DJOUDJ PARK: OF BIRDS AND MEN

Senegal's Djoudj National Park is a 16,000-hectare wetland in the Senegal River Delta. The world's third largest bird sanctuary, it is a haven for nearly 400 species and is included on the World Heritage List and on the Ramsar Convention's list of wetlands of international importance. A biological station has been built in the Park with assistance from Germany's North Rhine-Westphalia region. The local population is not necessarily involved in protecting the Park, however. Livestock graze in the regularly flooded fields and fishing deprives birds of their food supplies. What could be done to settle this clash of interests between men and birds? ■

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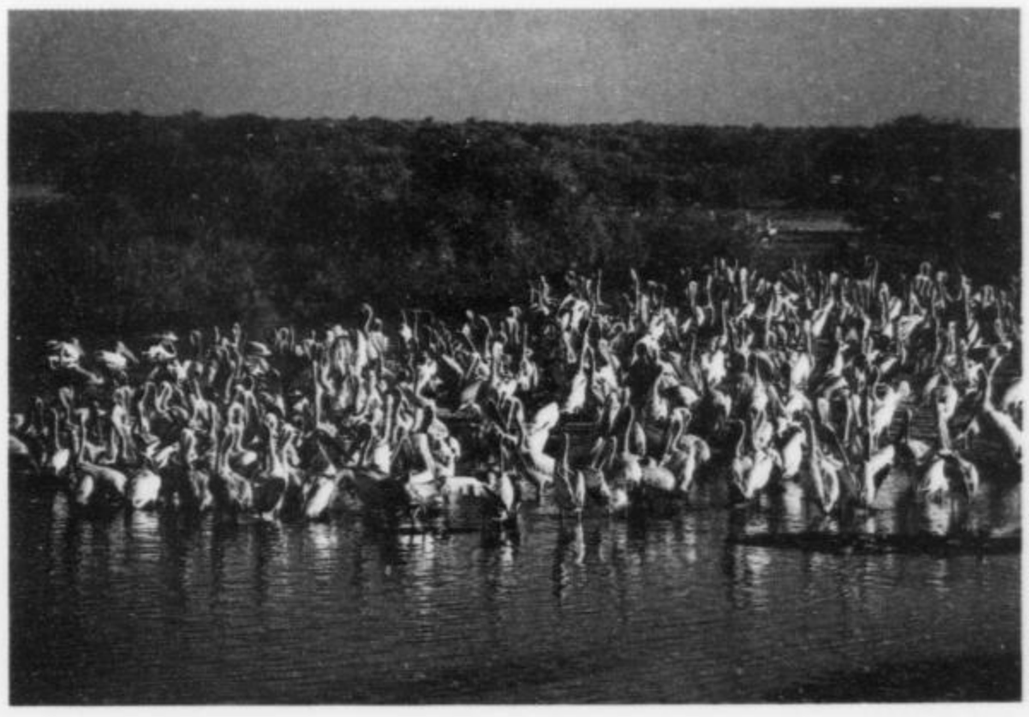

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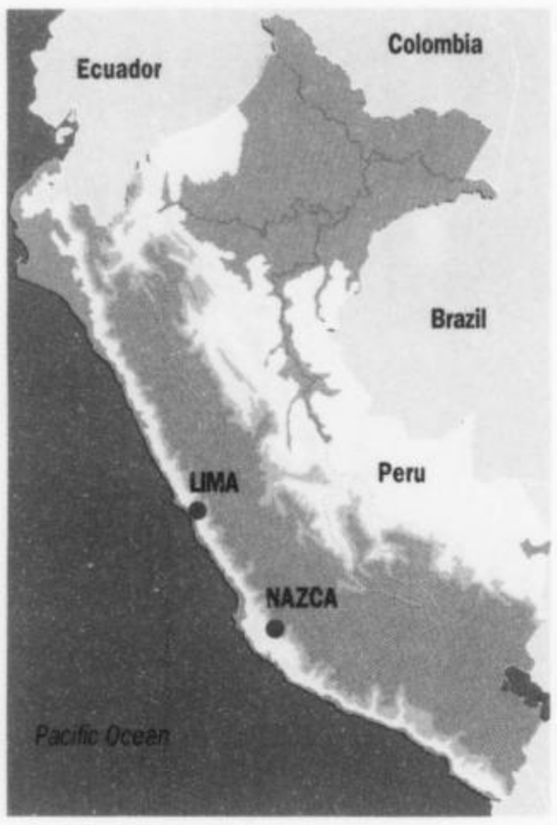
The NAZCA *mystery*

by Parisina Malatesta

Above, an aerial view of the humming-bird, one of the impressive animal outlines etched into the Nazca desert.

Opposite page, one of many specimens of Nazca pottery in Peru's National Archaeological Museum in Lima.



Vast networks of lines etched in the soil of Nazca (Peru) over 2,000 years ago form uncanny designs whose meaning still puzzles many archaeologists. The site has been on UNESCO's World Heritage List since 1994.

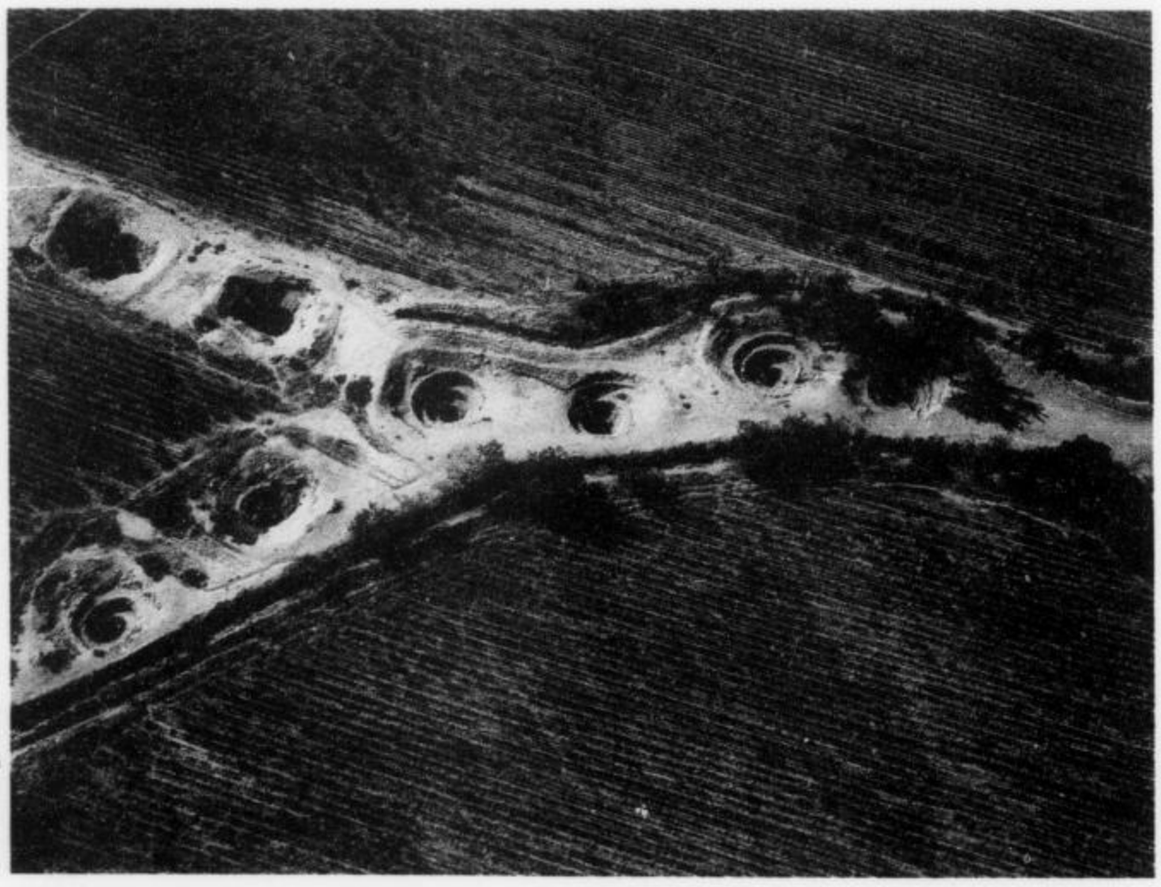
The desert air, already shimmering in the heat despite the early hour, roars through the windows of the small aircraft in which we are overflying the world's largest and most impressive concentration of geoglyphs—grooves incised in the earth. Beneath us is the archaeological site of Nazca, in southern Peru, which has been on the World Heritage List since 1994.

The lines, which form geometrical designs or figurative motifs, mirror a cosmogonic system which we are only just beginning to understand. Traced more than 2,000 years ago by the people of the Nazca culture, like writing on a giant slate, they cover an area of almost 500 square kilometres of arid land surrounded by outcrops of rock.

As if fascinated by the spectacle beneath it, the small one-engined plane slowly circles over the huge designs—a pelican 285 metres long, a *guanay* (guano bird) of 280 metres, a lizard of 180 metres (cut in two by the Pan-American highway!). The number of these large etchings in the soil and the period of time over which they made—from the fourth century B.C. to the fifth century A.D.—are equally astounding. Virtually invisible from the surface, they can only be fully taken in from the air. Their existence was unknown for centuries, and even today they are an archaeological enigma.

Who were the Nazca, the people whose culture flourished in

Below, wells (*puquios*) spiral into the earth along the vast network of underground irrigation channels that cross the Nazca valley.



Photos © Jorge Provenza, Caracas

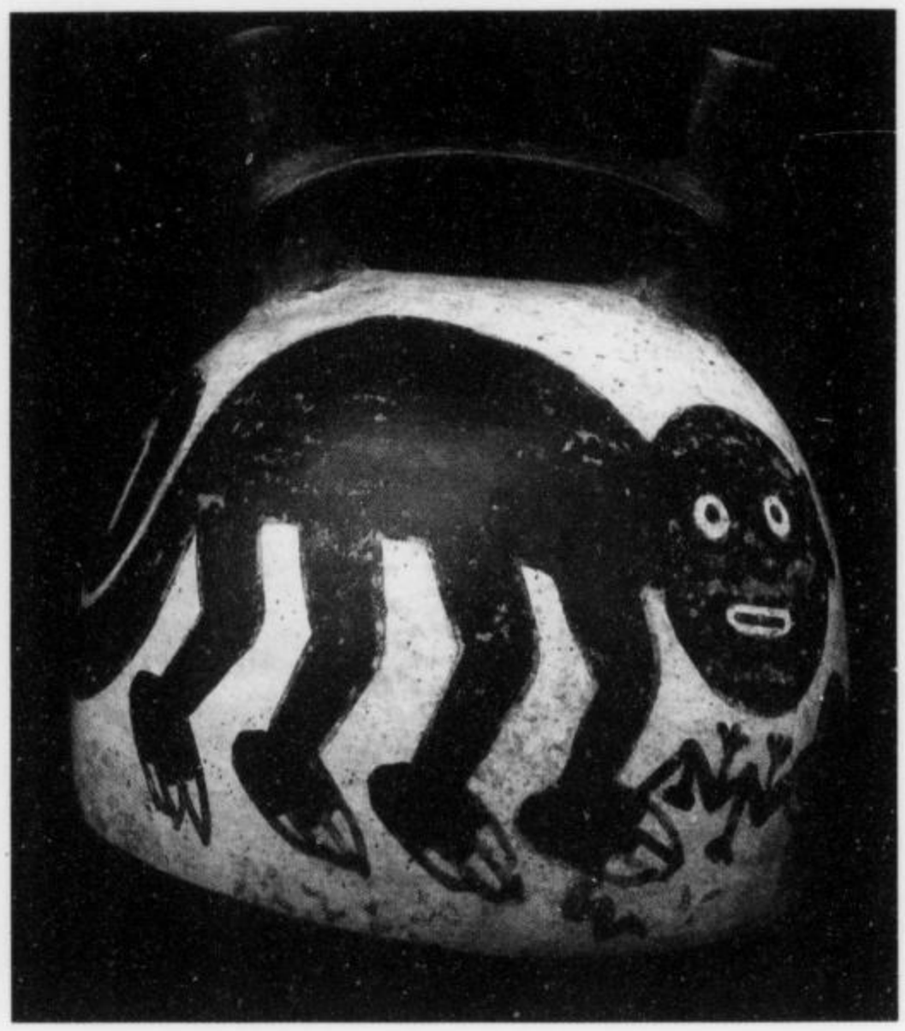
this sun-scorched and windswept region of the world? What is the meaning of their designs?

A COMPLEX CULTURE

Although the spiritual universe of the Nazca—children of the offshore winds blowing in from the Pacific and ancestors of the Huari culture—is still shrouded in mystery, sufficient vestiges of their culture and craftsmanship have survived for us to answer the first question. If the early ceremonial centre of Kawachi is included, their territory extended between the rivers Grande and Nazca. It included the oases of the Ingenio and Palpa river valleys situated between the cordillera of the Andes and the Pacific and the uninhabited alluvial plains stretching between the towns of Palpa and Nazca, where the geoglyphs are to be found.

It is in this inhospitable region—one of the most arid on the planet—that the Nazca developed a complex and industrious culture. Much of their history is reflected in their craft production, such as textiles, beaten gold artefacts and above all funerary pottery, in which they used as many as seven colours, whose different shades mark an amazing contrast with the austere tones of the surrounding desert. The National Archaeological Museum of Peru has some 2,500 of these ceramic pieces, which have a perfect finish and are in an excellent state of preservation owing to the region's dry atmosphere.

Further proof of the level of development reached by the Nazca can be seen in the vast hydraulic engineering works which they built to make up for the shortage of water and fertilize ▶



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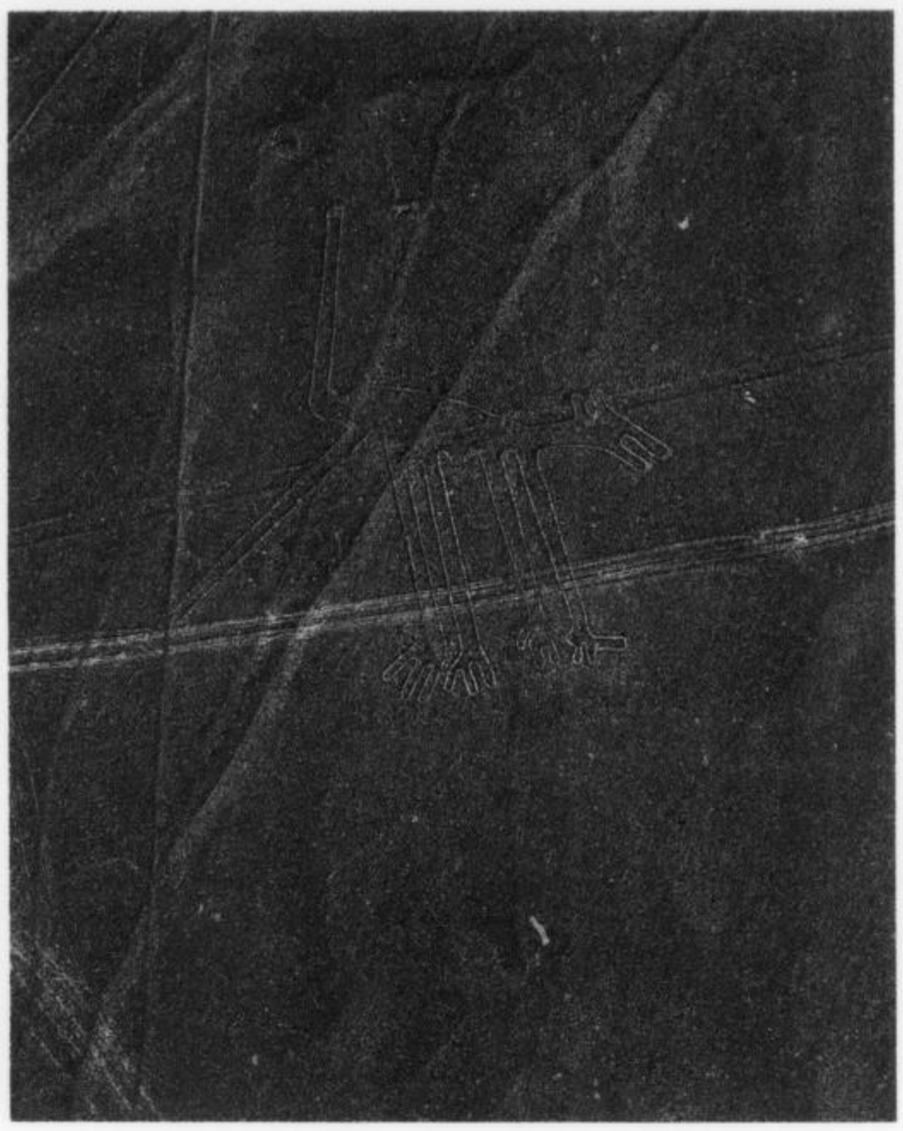


A dog (above) and a monkey (top) are among the most readily identifiable Nazca designs.

Top right, a monkey with a coiled tail on a piece of Nazca pottery resembles the one etched in the earth.

▶ the land and which are still in working order. They form an extensive network of underground channels, sometimes conveying the water for kilometres before emerging from time to time in superbly designed wells known as *puquios*. Seen from the sky, these lines of funnel-shaped cavities spiralling into the earth appear to stitch together whole stretches of the valley.

AN IMMENSE SLATE MADE OF SAND

Over the eight centuries during which they were created, the geoglyphs seem to have evolved from figurative motifs to increasingly geometrical and symbolic patterns. Whether or not this is the case, two main kinds of design can be distinguished. The first category, comprising some seventy items, consists of drawings of animals and plants. The largest and most spectacular concentration of animal silhouettes is on the slopes of the Ingenio river valley and includes a monkey, a spider, a dog, a humming-bird and a killer whale. The few human figures, such as the thirty-metre-tall "astronaut" or owl-man etched into a hillside near Jumana, are creatures of fantasy. Other drawings depict flowers, plants or twisted trees, and everyday objects, such as a weaver's loom.

These figurative motifs moved towards a more consolidated symbolic form, which gave rise to the second category of geoglyphs. These are lines which look as if they have been traced with a ruler and cut through the plain, sometimes for kilometres on end, to form a variety of geometrical figures such as triangles, spirals and rectangles. Others span outwards from a central promontory or encircle it like the *quipu* cords used in Inca accounting systems. Yet another group is formed of "paths" for the guidance of people travelling on foot.

Most of the motifs, figurative and geometrical alike, are found on pottery and textiles dating from the same period. María Reiche, who spent many years studying the Nazca lines, came to the conclusion that these geometrical drawings were symbolic writing in which the same words were sometimes written in giant characters and in other instances in small letters.

The technique used by the Nazca to produce these designs was both simple and ingenious. All they had to do was to rake back the dark and gravelly topsoil to uncover the much lighter-coloured clay layer and to pile the waste material in 30-centimetre-high banks on either side of the line. The high degree of oxidation of the soil and the moist winds at night, which clean out the furrows clogged with sand by the winds blowing during the day, have protected the Nazca lines until the present time. In addition to these engraved intaglio-like designs are some executed in relief and others, which are much older, incised into the sides of mountains.

Left, a viewing platform beside the Pan-American highway allows tourists to look at the giant figures engraved in the earth.

Some pottery pieces are decorated in as many as seven different colours, right.

Above, a frigate bird, a seabird with a very broad wingspan.

How did the Nazca solve the problems of scale? According to María Reiche, they had plans on which they plotted short distances, which they then had only to multiply and transpose using stakes and ropes like a gigantic set of compasses. The precision of the measurements and angles shows that they had a thorough command of geometry.

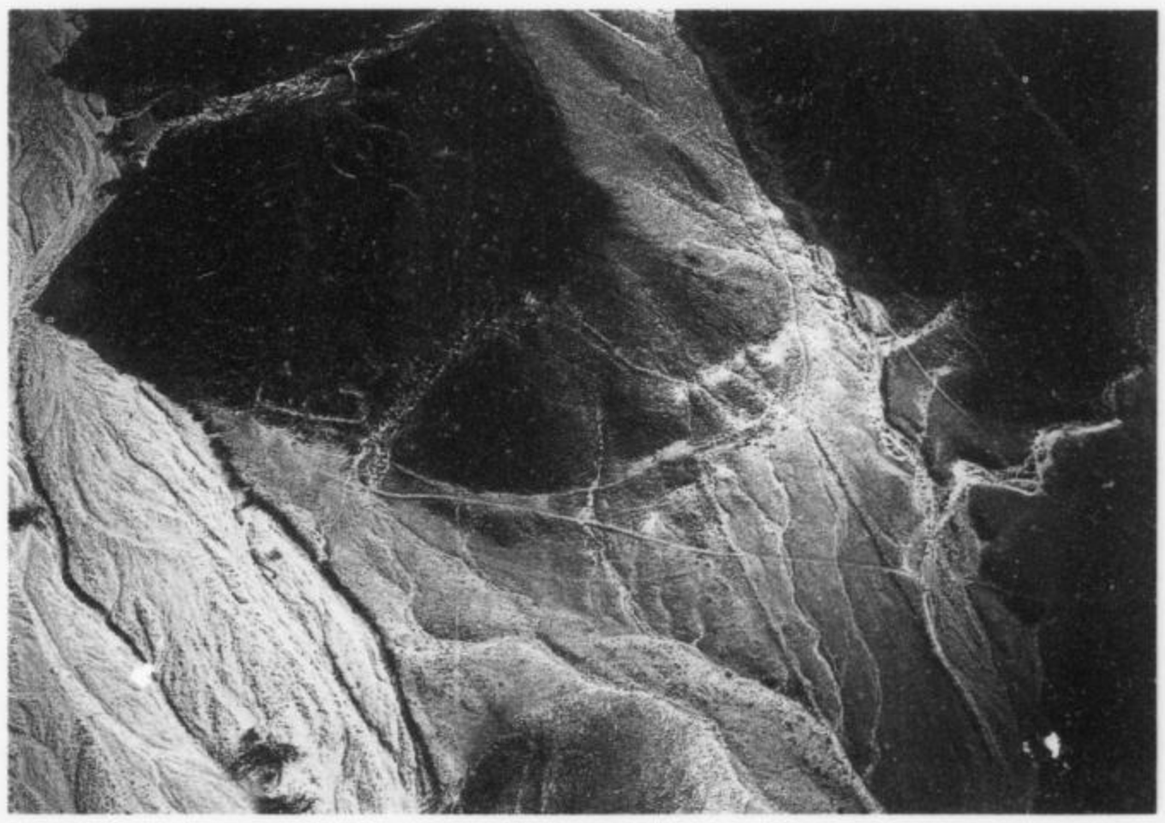
THE MYSTERY UNVEILED?

When the Peruvian scholar Mejía Xesspe first saw the Nazca lines in 1926, shortly after their accidental discovery, he thought that they were "sacred roads", since some of them were like paths along which it was possible to walk. However, it was not until 1941 that the first scientific exploration mission was organized under the direction of the American historian Paul Kosok, with the assistance of the Peruvian air force.

On 22 June 1941, the shortest day of the year in the southern hemisphere, Kosok noticed that the sun set precisely at the end of one of the lines. He concluded that it was a solstice line and thus came to regard the Nazca geoglyphs as being the world's biggest astronomy book.

The following year, Kosok returned to Nazca with María Reiche, a German translator from Lima. Stunned by the spectacle and intrigued by the mystery of the geoglyphs, she was to spend the rest of her life elucidating the enigma of Nazca and protecting the site.

According to Reiche, who confirmed this aspect of Kosok's theory, the Nazca lines are a gigantic astronomical calendar recording the passing of the seasons and predicting eclipses of the sun and the moon. In her book *Contribuciones a la geometría y astronomía en el antiguo Perú*" (1993, "Contributions of ancient Peru to the history ▸



Left, the owl-man, or astronaut, one of the very few anthropomorphic Nazca designs.

Right, this jug illustrates the highly skilled craftsmanship of the Nazca potters.

of geometry and astronomy"), she wrote: "The Nazca knew about the movements of the heavenly bodies and knew how to calculate exactly when to start sowing and when to gather in the harvest. They can accordingly claim to have their place in the history of astronomy". In her opinion, the stars were the template for the orientation of the Nazca lines. The 46-metre long spider, for example, was connected with the constellation of Orion and the spectacular 110-metre-long monkey with the Pleiades.

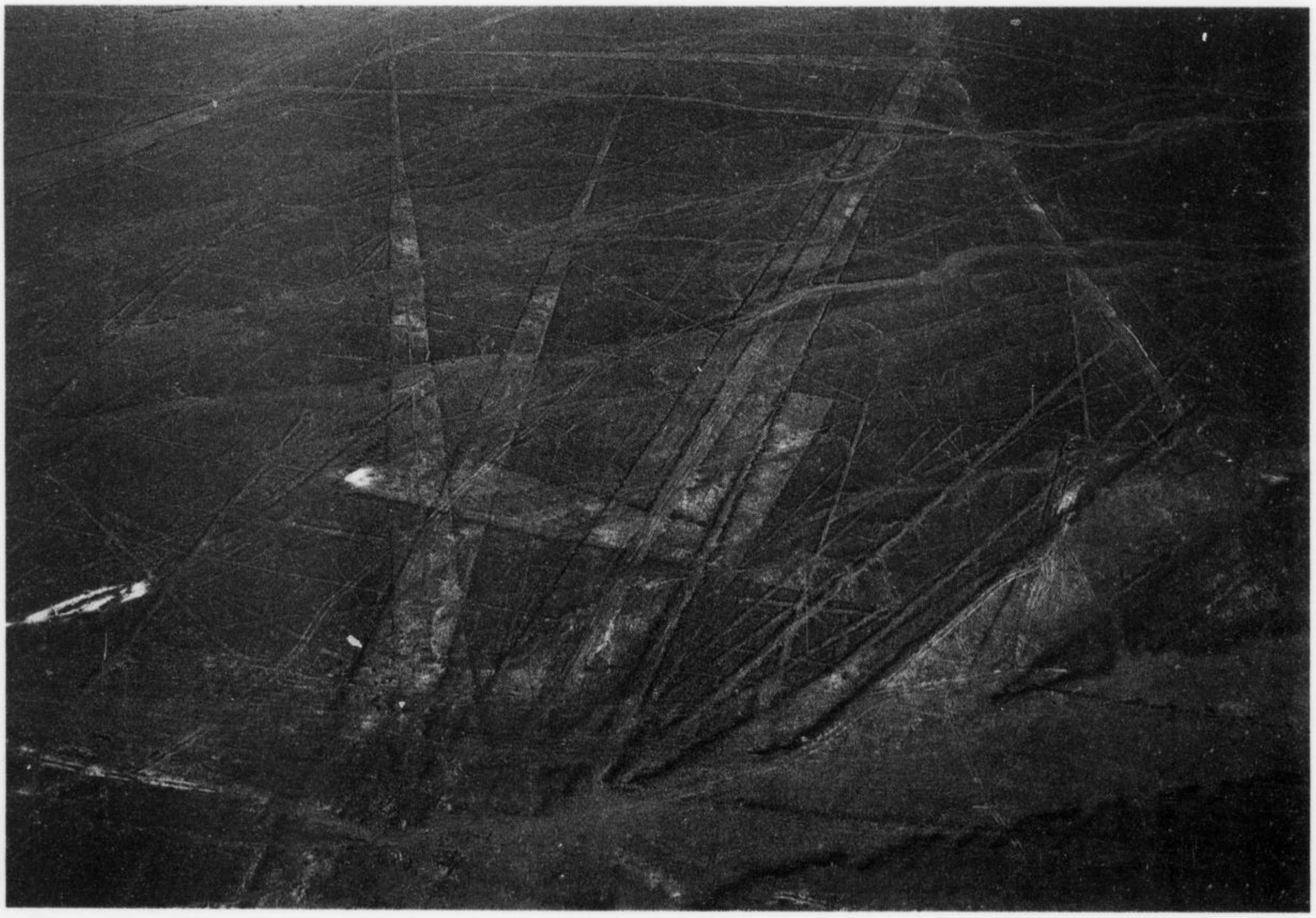
However, the theories of Kosok and Reiche are countered by research conducted by the astrophysicist Gerald S. Hawkins, who in 1967 reconstituted by computer the changes in the map of the sky in the Nazca region over the past 7,000 years. He demonstrated that 80 per cent of the geoglyphs bear no relation to the movement of the forty-five main heavenly bodies in the sky over Nazca and that only thirty-nine lines coincide with the movements of the sun and moon.

OPEN-AIR TEMPLES

Disregarding the far-fetched theories of Erich von Daniken, Hunt Williamson and others, who looked upon the lines as landing strips meant to be seen from the sky by extraterrestrial creatures, most scientists now agree that the geoglyphs performed a ritual function connected with astronomy. The designs were probably totemic representations connected with the organization of clans (*ayllus*), which helped to maintain the social and religious hegemony of the Nazca over the centuries.

Some archaeologists regard the designs as fantastic open-air temples which made it possible for the people to enter into communion with the cosmic force of the spirit they represented. It is true that most of the drawings have a clearly identifiable "entrance". For example, it is possible to start out from the coiled-up tail of the monkey design, which like the others is formed by a single unbroken line, and follow the whole figure in outline right back to the starting point. It can be readily surmised that such continuity must have had a ritual purpose.

Like a large map of the celestial world, these lines on the *pampa* challenge us not only to decipher their meaning but also to preserve them in an environment so fragile that every footprint leaves its mark. Through María Reiche's endeavours, a viewing platform has been built for visitors, but this does not prevent motor vehicles from driving on the existing tracks and leaving indelible tyre-marks in the landscape. Unless the necessary protection measures are taken, this exceptional archaeological site, which has come down to us intact after more than 2,000 years, could disappear forever in the space of a few decades. ■



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Some theorists have maintained that these long straight lines traced in the desert indicate landing strips for extraterrestrial creatures.

Ton-That Tiêt

talks to ISABELLE LEYMARIE

© Olivier Ton-That, Saint-Maur-des Fossés, France

Ton-That Tiêt, who was born in 1933 in Hue, the former capital of imperial Viet Nam, and has lived in Paris since 1958, is a composer who has succeeded in marrying Western musical styles with a profoundly Oriental form of thinking and sensibility. Silence, as well as the expressive beauty of sounds, plays an important part in his works, which reflect their author's preoccupation with the harmony between humanity and the universe.

■ **How did you come to Western music?**

Ton-That Tiêt: When I was about fourteen or fifteen, I wanted to play the violin. My brothers and sisters clubbed together to buy me one, which they arranged to be sent from France. One of my cousins, who played the violin a little, gave me lessons, but when he emigrated to France, I found nobody in Hué to replace him and I had to work on my own, with a method and scores which I ordered specially.

■ **How did you continue your studies?**

T.-T. T.: I dreamed of going to Paris and entering the Conservatoire. I worked and saved for two years in order to pay for the journey. When I got to Paris, I was introduced to a teacher at the Conservatoire, Georges Dandelot. My knowledge of music theory was so sketchy that I had to start all over again, or almost. I had so much work that I had to give up the violin. I soon learned that I could not work at an instrument and go in for advanced theoretical studies at the same time. I also studied counterpoint with Madame Honegger at the Paris *Ecole Normale de Musique*. At the end of two years, I obtained a degree in harmony and applied for a place at the Conservatoire.

■ **Were you already composing?**

T.-T. T.: Not yet. However, in order to be accepted in the composition class, I had to submit something. I composed a piece for string quartet which left no abiding impression. When I started to study composition in the early 1960s, I was attracted by serial music and started studying it by myself. At the time, many of my fellow students were composing in that idiom. However, my teacher Jean Rivier advised me to give it up. One day he said to me: "Go back to Asia and try to find your own way". He encouraged me to go deeper into my knowledge of Asian traditional music and to study Oriental philosophy. André Jolivet, who took over from him, was also a considerable influence on me in that respect. Rediscovering Oriental thinking was an important step, because it created a mental universe which enabled me to find my own personal style. At the end of three or four years, Jolivet saw that the path I had chosen was beginning to emerge.

■ **How did you rediscover Vietnamese music?**

T.-T. T.: The Guimet museum in Paris has a collection of recordings of Vietnamese music and used to hold concerts of Oriental music. The musicologist Tran Van Khê, who worked there, introduced me to Buddhist music.

■ **How did you come across the idea of composing on the basis of the five elements: wood, fire, earth, metal and water?**

T.-T. T: By studying Chinese philosophy, and especially the *Yi Ching*. My first work, an orchestral piece called *Five Elements*, which was based on the *Yi Ching*, was composed in 1972, and I returned to the same theme in 1981. However, I did not use the *Yi Ching* in a random fashion, like John Cage, or as a divinatory form, since that did not interest me. What fascinates me in the *Yi Ching* is the explanation it gives of the evolution of the universe. I also took an interest in Great Vehicle Buddhism, but strictly from a philosophical standpoint, since I do not practise any religion. The two main themes of my work are humanity and the universe. Buddhism and the other Oriental philosophies stress universal love and the fact that all human beings are brothers. ▶

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■ Do you use Asian instruments in your compositions?

T.-T. T.: I used a single-stringed instrument on one occasion, in a piece for flute and magnetic tape commissioned by the French Institute for musical-acoustical research and co-ordination (IRCAM).

■ What projects do you have in hand at the moment?

T.-T. T.: I am working on a second ballet for the Régine Chopinot company—I already wrote one for them in 1996 on the theme of fire, in harmony and opposition with the five elements. I am now looking into the concept of time. I am interested in handling this theme in the Oriental rather than Western manner. The West invented linear and cyclical time, whereas in Asia the concept of time draws on its absence, since time does not exist in the universe. The *Yi-Ching* speaks neither of beginning nor end. There is no original "big bang".

■ You are also endeavouring to safeguard the musical traditions of Viet Nam.

T.-T. T.: In 1992, I had an opportunity to attend some courses on traditional music at Hanoi Conservatory and I was appalled at what I heard: the music had been altered and harmonized and new features had been tacked on to it.

The following year, in Hanoi, I met a very old woman who was a wonderful exponent of *catru*, a style of singing notable for its vibrato and special vocal techniques. She was the only surviving exponent of this style. I asked her to train some young singers, so that the tradition would not be lost. In fact, the family of musicians accompanying her had a daughter who sang some *catru*. Madame Quach Thi Hô agreed to take her under her wing.

In Hué, I contacted all the performers of traditional music. I organized a meeting with the three leading master musicians and asked them to recreate a court music orchestra.

They regularly sent me cassettes, so that I could hear what progress they were making. After one year, the imperial orchestra was proficient, but the younger musicians still had to be trained. I was amazed to find that the girl who was learning *catru* had perfectly mastered the vocal technique. I was subsequently able to organize a concert of traditional Vietnamese music at the *Maison des Cultures et du Monde* in Paris in 1995. ■

Words for music

BY ADÁM FELLEGI

In spite of the large number of festivals, concerts and cultural gatherings, often of a very high standard, that are held worldwide each year, classical European culture, traditionally the culture of elites, is attracting fewer and fewer young people.

Artists themselves—painters and musicians alike—bear their share of responsibility for this deplorable state of affairs. Since they disdain change and are indeed hostile to it, they rely on refining their art, in the hope that virtuosity alone will be sufficient to bring back the audience which they no longer command. The grave error they commit is that they do not make adequate allowance for public expectations and disregard the fact that, in art, lack of communication rules out any possibility of communion with the work.

My own experience as a pianist has taught me that a few simple but well-chosen words of introduction often make it possible for the public to go deeper into the work I am about to play and to appreciate it all the more. The form which this brief introduction takes matters little: it may be a formal or historical analysis, a biographical overview, putting the work in perspective through comparisons or a general cultural commentary. The important thing is to give an idea of the work being presented.

Obviously, the length of the introduction should not exceed that of the piece itself. The performer speaking should be sincere and convinced of what he is saying, and should use language that a child can understand. Care should be taken to avoid technical jargon. It is essential for the performer in person to present the work about to be played. Using a tape recorder to play a pre-recorded message is likely to alienate the audience. On the other hand, the contortions and mimicry in which a virtuoso in swallow-tails may indulge while playing can have a deterrent effect on would-be music-lovers.

At each of my recitals I endeavour to say a few words, in four languages, about the masterpieces which I am going to perform, masterpieces which are now so seldom played in public, such as the sonatas of Mozart and Beethoven or Bach's *The Well-Tempered Clavier*. Through this approach, I believe that I have found a way of combating one of the afflictions currently affecting the world of music. Unfortunately, the effectiveness of such an approach does not prevent it from being disregarded by professionals who, like me, have been brought up to worship the technicalities of performance, to the detriment of a broader approach to the work and its reproduction. ■

AUTHORS

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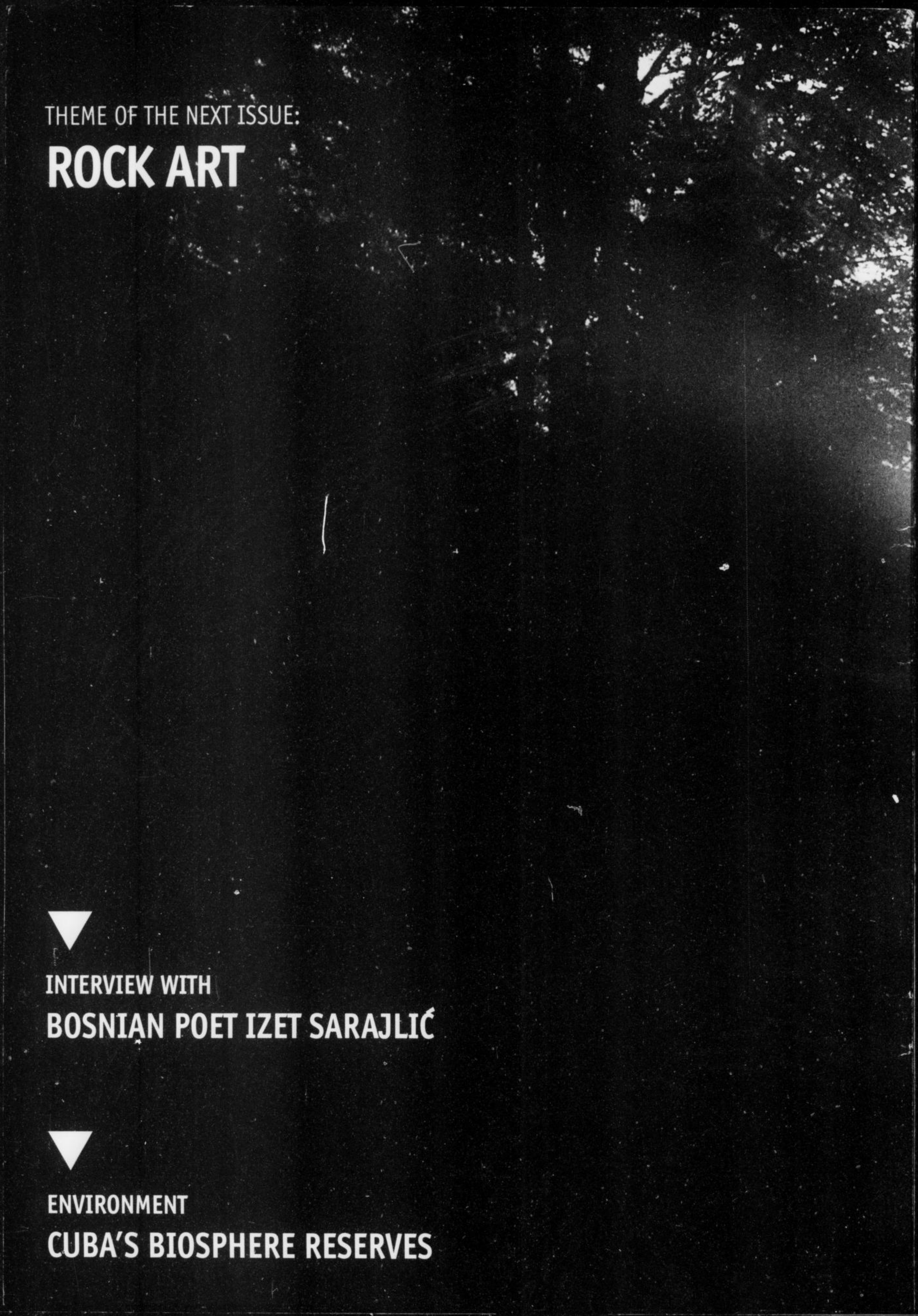

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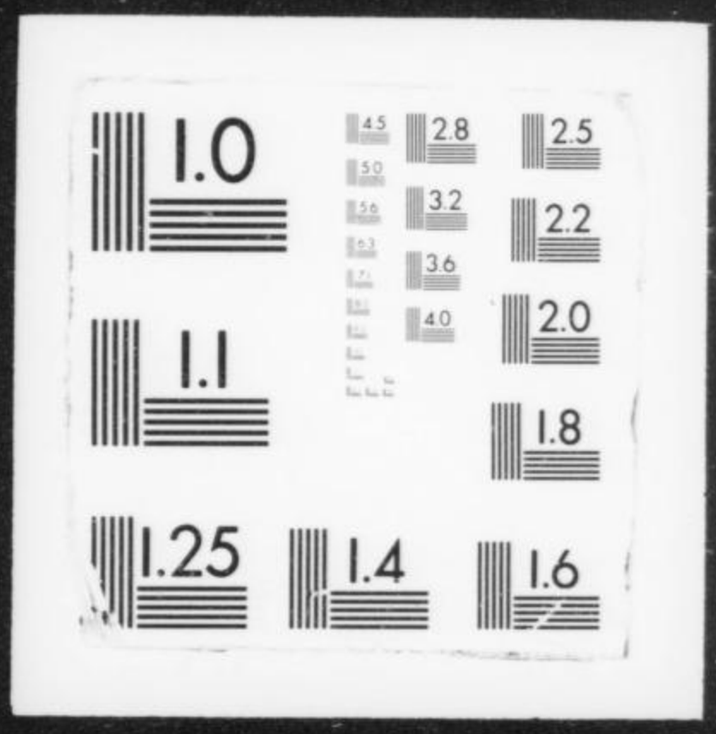
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